

Anglican
EcoCare



Anglican EcoCare Journal of
***Eco* THEOLOGY**

Volume 2, Spring 2016



Anglican EcoCare
Journal of Ecotheology

ANGLICAN ECOCARE
JOURNAL OF ECOTHEOLOGY

Copyright © Anglican EcoCare 2016.

Reproduction of any of the works in the Journal other than to the extent allowed by the Copyright Act is not permitted without prior permission; all enquiries should be directed to the Project Officer. Individual authors retain copyright of their work, while copyright of the published edition is asserted by Anglican EcoCare.

The views and opinions expressed in this journal are those of the authors and do not necessarily represent those of Anglican EcoCare or the Diocese of Perth.

Editorial Board

Dr Deborah Guess
The Reverend Canon Dr John Dunnill
The Reverend Craig Collas
The Reverend Peter Llewellyn
The Reverend Evan Pederick
The Right Reverend Tom Wilmot

Project Officer

Ms Radhika Roy
ecocare@perth.anglican.org

Design

Cameron Evans

Printed on recycled, carbon-neutral paper by the Environmental Printing Co.
Also available online at www.advocacy.perth.anglican.org

ISSN 2204-1877 (print)

Contents

About the journal	v
Introduction to the papers	vii
Too present and not present enough	1
Welcome to the Anthropocene	
<i>George Browning</i>	
From “dominion” to “in communion”	11
Ecotheology from an African perspective	
<i>James N. Amanze</i>	
All things bright and beautiful?	23
Toward an aesthetic ecotheology	
<i>Mick Pope</i>	
The hidden things of God in the ocean	41
<i>Robert D. Sluka</i>	
Let all the islands sing	51
Ecotheology informed by Melanesia	
<i>Aram Oroi, Nigel Kelaepa, and Keith Joseph</i>	
The intelligent earth	73
The noosphere as a model for the more-than-human ecology	
<i>Evan Pederick</i>	
The “priesthood of all believers”	93
Human beings and creation from an Orthodox perspective	
<i>Gregory Seach</i>	

Where is “...and earth”? **103**
Learning to preach in the Anthropocene
Graeme Garrett

Submission guidelines **117**

About the journal

Welcome to the second issue of the *Journal of Ecotheology*, published by the Anglican EcoCare Commission in the Diocese of Perth.

Since 2006, Anglican EcoCare has undertaken a dual role, speaking on behalf of the Church on matters of faith and the environment as well as seeking to transform the Church itself through reflection on environmental theology, education and advocacy. We also seek to build relationships with other environmental organisations, faith groups and educational institutions regarding environmental matters.

As we sought ways of articulating a distinctly Christian perspective on creation both within our own churches and in working alongside other agencies and faith perspectives we became aware of the need for an Australian theological journal dedicated to the emerging cross-disciplinary area of ecotheology. We believe ecotheology offers a unique and urgent critique both for the Church and for our shared life on this fragile and vulnerable landscape. The first issue of the *Journal of Ecotheology*, published in 2014, demonstrated that Australian theologians indeed have a distinct “take” on ecotheology formed both by our landscape and our historical engagement with immigrant and indigenous cultures and spirituality.

The response to our first issue was very encouraging. We planned to publish future issues annually in October, but experienced some setbacks including the departure of our Project Officer in 2015. However this year we have been very pleased to welcome a new Project Officer, as well as several new members onto the Editorial Board who bring academic rigour, publishing expertise and a broader ecumenical base. We are also excited to have received international as well as Australian submissions of a high calibre. Indigenous perspectives also continue to be well represented.

Planning is already underway for the 2017 issue of the *Journal of Ecotheology*. We continue to welcome contributions from all theological perspectives and academic disciplines. Guidelines for contributors are printed at the end of the publication, and the deadline for submissions is 30 June 2017. Prospective

contributors may submit an abstract or proposal for comment in advance, and all contributions are peer-reviewed.

Evan Pederick, Editorial Board

9 November 2016

Introduction to the papers

The catchword “Anthropocene” has become ubiquitous in various kinds of ecological discourse in recent years. Popularised in 2000 by Dutch atmospheric chemist Paul Crutzen, the term denotes the present era as one in which human activity has dominated the biophysical world so extensively that our species now powerfully determines the fate of other species and of natural systems. The word appears increasingly in ecological theology, and is used by three of the authors in this collection.

George Browning asks how human beings should respond to the present ecological context. Beginning with God and creation, Browning argues that God’s self-withdrawal (*kenosis*) in creation and incarnation reveals something of the very nature of God, but there is a profound inconsistency between the kenotic image found in scripture and twenty-first century Western culture. Paradoxically, humanity has both become “too present” to creation, in the sense of excessive levels of population and consumption, yet at the same time is “not present enough” to creation because our present crisis arises from our fundamental disconnection from other creatures and from Earth itself.

In the second paper James Amanze uses anthropological theory to show how traditional African religions imposed taboos which prohibited, and thereby prevented, environmentally damaging attitudes and behaviour. In contrast to Western belief and practice, Amanze argues that in African traditional religion there is an understanding that land is sacred because it is seen to belong to the divine, to the ancestors, and to the present community. This entails a sense of communion between people and the natural world which extends from the land to trees, hills, animals, mountains and water.

Mick Pope uses aesthetic theology to make the dual claim that beauty is generated and shaped by the processes of evolution yet is also grounded in the divine. He asks whether natural beauty can save the world. Leaving the final answer to his question somewhat open, Pope suggests some possible first steps might be to utilise resources from the Christian tradition and for Australians to align themselves more strongly with a non-colonial approach to the unique Australian landscape and biota.

The paper by Robert Sluka is a reminder that ecological theology is firmly grounded in a praxis orientation which conjoins theology with practical aspects of ecological care. Taking a hermeneutical approach, Sluka considers a number of texts, in particular Revelation 5, in relation to the topic of marine research and conservation. The final discussion of the Kenyan work of the Christian conservation organisation *A Rocha* complements the paper's dual focus on theory-and-practice. A similar emphasis on praxis is found in the paper by Nigel Kelaepa, Aram Oroí and Keith Joseph who diverge from the Western analytic mode by using story-telling as a theological model. The authors use a number of narratives and pictures to express the ecological crisis of Oceania. Among these are examples of taro crops infused by salt water and a cemetery inundated by sea. These poignant stories illustrate the way that people in the region "have their life and future and culture taken away from them to feed the insatiable demands of the West and Asia." The Oceanic concept of *mana* (creative power), it is suggested, is valuable for ecological theology because it has both a Godly form in which God is present to creation, and a human form which impels ecological responsibility.

The thought of Teilhard de Chardin is explored by Evan Pederick in order to develop a contemporary ecotheological model of the "noosphere." Noting the ecological difficulties at times posed by Teilhard's work—his anthropocentrism, his overly optimistic approach to technology and (in his later work) a return to a kind of spirit-matter dualism—Pederick retrieves and reconstructs the idea of the "noosphere" in a way that eliminates those difficulties yet resonates with current understandings in biology and with the biblical Wisdom tradition. Gregory Seach expounds the idea of Orthodox thinker John D. Zizioulas that the fundamental calling of human beings, made in the image of God yet also made from or of the earth, is to be "priests of creation." The calling of humankind is to refer creation to God rather than, as has too often happened, refer creation to the human. Jesus fulfils this calling (in a way that we have failed to do) by living in harmony with creation, offering creation to God, and surrendering himself to death, thereby reconciling creation and the divine.

In the final paper Graeme Garrett discusses three ways in which preaching can be related to ecology: the context of preaching is the background of ecological decay; the condition of preaching is the human person who is part of the complex evolutionary process; and the content of preaching expresses God's desires for creation. Drawing on the later chapters of Job and on Luther's understanding of sin as the curving inward of the human being upon itself, Garrett argues that the preaching of a new creation and of spiritual

transformation has become an ongoing imperative which involves repenting from the position that “earth exists for human convenience.”

This is a diverse range of papers. The geographical origin and focus of the papers extends from Africa to Oceania to Australia. The topics chosen show considerable variety, and there are good examples of how to use differing kinds of methodology and approach. This diversity reflects the broad and transdisciplinary scope of the Journal and of ecological theology itself. We are pleased to present the papers that comprise this, the second volume of the *Journal of Ecotheology*.

Deborah Guess, Editorial Board
7 November 2016

Too present and not present enough

*Welcome to the Anthropocene*¹

George Browning

A Canadian cousin recently sent me a YouTube link to Bishop Tom Wright being quizzed about same sex marriage. He made what was for me a profound statement, “Creation is founded upon the complementarity of opposites.”² How he developed this theme for the same sex marriage agenda is fairly obvious, but I am interested in teasing out this statement in relation to the environment and the debate generated by the notion of the Anthropocene. How should humanity be responding to the environmental crisis and the threat of global warming?

My world view is that the universe is a creation and therefore relationality is as important to understand as the physical laws that govern the universe. As sentient beings, we must seek to live in a manner which is consistent with our understanding of the underlying principles of creation. We need to do this both for our own sake as well as for the sake of the nonhuman creation which we have come to dominate. Humanity has progressively become more aware of these principles through scientific discovery and has historically applied the wisdom of the ages to interpret these principles for productive and beneficial living. Religion, and especially the Christian faith, has historically been central to this interpretation. Today its relevance as an interpreter is under question by most and denied by some.

Despite much knowledge and wisdom being contemporaneously available, there is a growing tendency to ignore science and belittle faith, when either or

1 A term for the present age popularised by Professor Paul Crutzen, the Dutch Nobel prize winning atmospheric chemist, in the year 2000.

2 <http://www.youtube.com/watch?v=xKxvOMOmHel>

both appear to question the profit motive that drives ruling economic market forces. Both science and religion assert humans are part of the created order, not apart from it, we cannot simply exploit—we belong. I wish to turn first to our belonging and especially our relationship with the creator. If it is true that humans share an *imago Dei*, then it follows that exploring what God does will throw light on what humanity, at its best, might do.

The first “three days” of creation in Genesis (Genesis 1:1-10) describe the separation of opposites and the space provided for living things when these opposites are held in life giving tension: light from darkness (day and night); the water above from the water below by way of a dome (the heavens and the earth); and finally the separation of land and water. The three spaces, the sky the land and the sea are then filled with living things, the subject of the next “three days” (Genesis 1:11-31). The so called seventh day (Genesis 2:1-4) then tackles the dilemma faced by the creator. In order to allow space for the creation to flourish God has to withdraw and honour the space that has been created. But in order to enable living things to thrive God has to be present, the spirit that was at work on day one has to continue to be present. This dilemma, honouring space for that which is not God and yet being present, is teased out in the theology of sabbath, God “rests,” but through the resting God brings blessing and sanctification to the whole of creation.

Is it possible for God to be present and absent at the same time? Emil Brunner, and Jürgen Moltmann who has done more work on Sabbath and creation theology than most, believe so.

God does not wish to occupy the whole space himself but ... wills to make room for other forms of existence. In doing so he limits himself ... The κένωσις which reaches its paradoxical climax on the cross of Christ begins with the creation of the world.³

In their development of kenosis as a feature of creation Brunner and Moltmann are drawing on the thought and argument of Isaac Luria,⁴ who wrestled with the question “can there be any freedom at all for man if God was supposed to be omnipotent?”⁵

He expressed his ideas through what he called *Zimsum* (contraction and concentration), a withdrawal into oneself. He first developed the idea in relation to *shekinah* the withdrawal of God into himself to the extent that he

3 Emil Brunner, *The Christian Doctrine of Creation and Redemption* (London: Lutterworth Press, 1952), 20.

4 Sixteenth Century Kabbalist Rabbi (1534–72).

5 Paul Badde, *The Face of God the True Face of Jesus* (San Francisco: Ignatius Press, 2010), 222.

could dwell in a specific manner within the created order—tent and temple. Much later God is present within the time and space of creation in Christ, in a manner that is not equalled anywhere else in creation. Is the remarkable thing not that God is fully present in Christ, but rather that God makes space for that which is not God, as Moltmann says: “God makes room for his creation by withdrawing his presence.”⁶

As a rabbi, Luria quite naturally focussed on a principle that underscored deuteronomistic theology—one people—one place—one temple—one *shekinah*. The presence or *shekinah* of God that travelled with the Israelites in their wilderness journey had come to settle with them in the temple in Jerusalem. Nearly half a millennium later, the exile, that forced people to flee to Egypt and be removed to Babylon as graphically, described by Ezekiel, appears also to be the exile of God (Ezekiel 10:9-22). How could this be possible? Was the theology of *shekinah* wrong, misplaced? Had they been terribly mistaken to think that God dwelt with them? How can we sing the Lord’s song in a strange land? The argument of my thesis *Sabbath and the Common Good*,⁷ is that in this period of exile a theology of sabbath developed which transferred the deuteronomistic thesis of *shekinah* from the temple to the whole creation. *Shekinah* becomes expressed in sabbath. The particular becomes absorbed by the universal. Following the exile, Deutero-Isaiah, arguably the Old Testament’s theological climax, proclaims the universality of the Hebrew God.

Luria’s struggle about presence and temple needs to be transferred to an appreciation of how God can be absent from, yet present to creation. Brunner and Moltmann take up this challenge. Emptying or *kenosis*, the character of God we observe in redemption, and particularly the cross, they argue, can also be understood to be the character of God in creation. The character of God in creation and redemption is the same. *Kenosis* is not simply a character adopted by God for the purposes of redemption; it is the character of God. God is always and forever like the character we see in Jesus on the cross. Jesus is indeed the human face of God.

The clay and the potter

If this is the nature of God, omnipotence expressed through grace, or *Zimsum*, or *kenosis*, what does this have to say about the vocation of humanity in

6 Jürgen Moltmann, *God in Creation* (London: SCM Press, 1985), 87.

7 George Browning, *Sabbath and the Common Good: Prospects for a New Humanity* (Geelong: Echo Books, 2016).

relation to creation? If our vocation is to find out what God is doing and do that, and *Zimsum* or *kenosis* is what God does, then 21st century human civilisation needs considerable critique. As Rowan Williams has put it, we do not face an environmental crisis; we face a crisis of the human vocation.⁸ If we are to believe that creation reflects the nature of its creator and if humanity somehow uniquely reflects this image, has 21st century humanity made a monumental mess not simply of the environment, but of its place in the created order? More particularly has the “Christian” west colonised the world with a defective set of values? Has a competitive, profit seeking, free market capitalism morphed into a human form inconsistent with the biblical image and is this character of 21st century civilisation in conflict with the nonhuman creation’s capacity to endure?

Professor Clive Hamilton has recently been asked where his hope lies. His teasing answer is that he hopes the environmental future will be extremely bad, the alternative is that it will be catastrophic.⁹

I would like to approach the question of the human place on the planet at the commencement of the 21st century by suggesting that humanity has, in at least two respects, become too present to creation and yet on the other hand is not present enough.

Too present

When Professor Paul Crutzen talks of the Anthropocene he is talking of humanity being too present to creation. After millennia in which human progress was slow, even static, humans have become totally ubiquitous, with influence over the well being and destiny of all living things in every corner of the planet. This is an age unlike any other age, in which the destiny of life on the planet is in the hands of a single species—humans. When did this age begin? 10,000–12,000 years ago in the wake of the agricultural revolution? Did it begin more recently in the emergence of the industrial revolution, or more recently still as the effects of globalisation have removed limits to population expansion, consumerism and technological exploitation? It matters little; the reality is that the future of life as we know it is now firmly in the hands of humanity. There are currently 7.4 billion of us alive on the planet. Together with all the animals we have domesticated for food, companionship and

8 Rowan Williams, *Renewing the Face of the Earth: Human Responsibility and the Environment* (Ebor lecture. 25 March 2009), <http://rowanwilliams.archbishopofcanterbury.org/articles.php/2236/time-for-us-to-challenge-the-idols-of-high-finance>.

9 Clive Hamilton, *Address to scholars*, The Australian Centre for Christianity and Culture, 10 August 2016.

amusement our combined weight totals far more than two-thirds the weight of all fauna on the planet. In 2012 human weight was estimated to be 316 million tons. Unsurprisingly this weight is very unevenly distributed because obesity, the growing characteristic of the West means that humans are lighter in Asia or Africa than they are in Australia, North America, or Western Europe. Does this really matter? If those who are overweight knowingly shorten their lives, is not this their business? Yes and no. The reality is that weight is directly related to energy. Overweight people may appear to use less energy than fit people, but in terms of the planet's resources, they consume far more energy to keep going. There is a growing inequity between the prosperous of the world and their consumption of energy and the poor of the world who are less able to mitigate the consequences of this consumption.

What does Christianity in general and scripture in particular have to say about this matter? The answers are a mixed bag, but let us sift through them.

Population

Scripture, including the earliest parts of the Old Testament, were written well after the commencement of the agricultural revolution. However, they were written at a time when human population was reasonably static, life expectancy was low and life was fragile. In these circumstances it is unsurprising that passages such as Genesis 1:27-28 which demands expansion and subjugation of creation were so foundational that they are written into the creation narrative. To guarantee the life of future generations it was necessary that the current generation do all in its power to secure its place, expand and exploit its environment. This scripture needs to be understood in its ethical context of continuity.¹⁰ The Bible is the book of Abraham, Isaac, Jacob and their generations. Creation is a continuum as is the place of humanity within creation. It is within an understanding of this biblical ethic, an ethic founded on the principle of continuity, that the current generation must live and adapt, above all, must distinguish between what is primary and what is secondary.

What is primary is that each generation must live with the next generation in mind. While for millennia humans needed to exploit and expand for the sake of succeeding generations, contemporary living demands the opposite mandate—population limits. An expanding human population is now a threat to the well being of future generations, as it is to the planet as a whole, not an assurance of its blessing. Therefore in keeping with the primary biblical

10 The Bible is more concerned with time than space. It sees the world in the dimension of time. It pays more attention to generations, to events than to countries, to things. Abraham J. Heschel, *The Sabbath: Its Meaning for Modern Man* (New York: Farrar, Straus and Giroux, 2005), 6.

principle, this generation, acting as a steward for the next, needs to do all in its power to halt human population expansion and to begin its reduction.

This is a big call with various moral and economic implications. While the poorest of the world traditionally have the highest fertility rates, it is clearly not the right of the developed world to moralise about the birth rate of some of the poorest communities on earth. However it is the responsibility of the most prosperous nations on earth to contribute through foreign aid to ensure that the disempowered through education and access to technology have choices about their future that are currently denied them. This matter is not part of the public discourse in Australia. As we “enjoy” bipartisan political commitment to domestic “budget repair,” the lowest hanging fruit has been to cut overseas aid with the result that we now contribute the lowest figure as a percentage of GDP since the end of WWII. Overseas aid is not a charitable gift we make when we can afford it, it is an obligation to a more harmonious and equitable world and from the perspective of self-interest, an investment against a far more expensive option of a world that becomes so economically divided that those who have need to invest vast sums of money to protect themselves from those who have not.

Secondly, the Business Council of Australia consistently argues for an expanded migration policy—a bigger Australia. This call is not driven by humanitarian values but by economics. Economic growth remains dependent upon population expansion, not increased productivity. There are many reasons why this is the case. A significant reason is that much wealth is not generated by production but by a manipulation of the financial market. “Funny money” counts for a significant proportion of the money earned by banks, hedge funds, venture capitalists, *etc.* The Australian population, along with most of the western world is swallowing a mantra of the necessity of economic growth. The truth of the matter is that resources required to drive economic growth are drawn from the finite resources of planet earth. The Australian Conservation Foundation estimates that we currently draw about 145% of the planet’s capacity annually. That is to say we are increasingly in debt to the future, a debt which is far more significant, far more serious than the prospective debt forecast to be bequeathed to the next generation by an unrepaired domestic budget. The purpose of the biblical sabbath ethic is to ensure that human need does not exceed the need of the natural order for its own flourishing.

The third area of concern relating to population is human fertility and human intimacy. Institutional impositions may masquerade as moral requirements, but underneath may in fact be an expression of institutional self-interest. The continuing official but not practiced prohibition on family planning and

women's health education by the Roman Catholic Church needs attention from the present pontiff. The human population should not continue to expand anywhere because of a failure to distinguish between intimacy in marriage and pro-creation. The same sex marriage debate is essentially an acknowledgment that all human beings have need of intimacy, intimacy that is ideally expressed through lifelong monogamous relationships. There is an immediate need for culturally sensitive family planning education to be freely available to all communities on the planet.

Consumption

I have already indicated the second area of humanity's overpresence to the created order is exploitative consumption. Overly consumptive behaviour receives no comfort from the biblical narrative.

Aim is taken at consumptive hoarding by the tenth commandment, the only commandment that commences with an emphasis accentuated through duplication: "You shall not covet. You shall not covet your neighbour's . . ." In his wonderful little text "The sabbath," Abraham Heschel makes the point that the fourth commandment is the bridge between those commandments that relate to God and those that relate to human behaviour. He particularly claims that the tenth commandment is the spelling out in earthly terms of what a sabbath mind looks like. It is a mind that assumes abundance, while coveting assumes scarcity.

This is a constant refrain of Walter Brueggemann. Brueggemann insists that the biblical narrative unfolds the abundance and fecundity of life which is diminished in the human mind and spirit by behaviours that appear predicated on scarcity. Hoarding is not simply an expression of greed leading to serious inequity. It is a failure of wisdom as to how blessing and well being is to be experienced. We are not blessed through accumulated wealth; we are blessed through life giving relationships—but more of this later.

If the Sermon on the Mount is a neat summary of the teaching of Jesus (Matthew 5–7) then these chapters indicate a disproportionate focus on consumption is at the very heart of the human dilemma. An exaggerated focus on consumption is not simply eating away at the natural environment, it is eating away at the human soul, we are becoming, or have become, something other than we are destined to become. Margaret Barker¹¹ encourages us to think through the serious state of contemporary humanity by looking again at

11 Margaret Barker is an authoritative linguist and the author of many books. The foreword in her book *Creation* (London: T&T Clark, 2009) is contributed by his Holiness Bartholomew, The Ecumenical Patriarch. These comments came from a personal conversation with her at her home in Derby, UK.

the “Mark of the Beast” (Revelation 13:11-18). She suggests the interpretation of this passage about human downfall or destiny is overly spiritualised. While the text can infer the bite of a serpent (the devil) the text can also be interpreted as a commentary on usury—the desire to manipulate money for one’s consumptive advantage. This commentary about the human condition has a great deal to say about the ubiquitous mantra of economic growth. Not only is economic growth unsustainable on a finite planet, not only is it a major contributor to the environmental crisis (along with population expansion), but it is also a cause of human diminishment. Life is not fundamentally about self and what we own; it is about how we live in relation to the other.

Not being present enough

It is only a few years ago that I felt “left” and “right” were no longer helpful descriptors of politics, that we had move beyond these stereotypes. I have changed my mind. It seems to me that there is a contemporary battle being waged between left and right. What has changed however is that the combatants on either side are not predictable! China is supposedly the most powerful communist country in the world and therefore, theoretically at least, on the extreme left. However if recent documentaries about the political and business elite in China are to be believed a monumental change has occurred in the Chinese body politic. Workers appear but pawns in the aspirations of the powerful and wealthy, driving a monumental equity divide through the country’s citizenry. The right is essentially about individualism; about competition; about securing maintaining and growing advantage; about accumulation; about profit and wealth. The left, at its best, is about belonging; about relationships; about community; about the commons; about common good; about equity; about care for the vulnerable and disadvantaged.

Inasmuch that capitalism is now the globally ubiquitous economic narrative and capitalism seems no longer about the fair distribution of wealth but solely about profit, then we live within a narrative of disconnection. What matters, apparently, is economic growth regardless of social or environmental consequence. *We are not present enough.*

The biblical narrative begins with *adam*, humanity, a child of the *adamah*—the earth. We have an essential connection to the ground from which we come. The narrative then goes on to speak of the animals as companions. We have a responsibility that emerges out of relationship. All relationships need to be fostered. If we humans live, by implication, “apart from,” rather than a “part of” the natural order we are not in a position to foster that which is essential to life on the planet. The natural order has become an object to satisfy human

desire. We appear to have totally lost our sense of being part of that which we are exploiting. The truth the age of the Anthropocene seeks is not whether the planet can or will survive; over many millennia it has survived multiple catastrophes, the question is whether humanity will be part of this survival or whether our exploitation will have brought about our demise.

The Genesis creation narrative does not conclude with the Garden of Eden, it continues through the flood narrative to the covenant with Noah. There are a number of covenantal narratives in scripture—most have a particularity about them—Abraham, David, Jeremiah, *etc.* What makes the Noah covenant different is that it is a covenant between God and all living. The later particular covenants which give Jews, Christians and Muslims identity need to be understood and applied within the context of this first and primary covenant. If any consider themselves called into a special relationship with God, it can only be out of service to the first covenant with all living. No matter who we are or what identity we claim, we serve the connectedness we share with all living and with the earth itself. We need to be present. Our absence is not only destroying the planet it is making us less than we could be, less than our destiny calls us to be.

We are indeed both far too present and not nearly present enough.

The Right Reverend Dr George Browning is the former Bishop of Canberra and Goulburn. Nationally, Bishop George has served as a member of the Review Committee for the Australian Honours System and of the Ethics Committee of the Australian Institute of Aboriginal and Torres Strait Islander Studies. He was a member of the Advisory Council of the Climate Institute and initiated the establishment of the Australian Centre for Christianity and Culture. He has remained closely associated with the Centre and is now the convener of its ambassadors programme. He was the inaugural convener of the international Anglican Communion's Environment Network.

References

- Badde, Paul. *The Face of God the True Face of Jesus*. San Francisco: Ignatius Press, 2010.
- Browning, George. *Sabbath and the Common Good: Prospects for a New Humanity*. Geelong: Echo Books, 2016.
- Brunner, Emil. *The Christian Doctrine of Creation and Redemption*. London: Lutterworth Press, 1952.
- Hamilton, Clive. "Address to scholars." Lecture, The Australian Centre for Christianity and Culture, 10 August 2016.
- Heschel, Abraham. *The Sabbath: Its meaning for Modern Man*. New York: Farrar Strauss and Giroux, 2005.
- Moltmann, Jürgen. *God in Creation*. London: SCM Press, 1985.
- Williams, Rowan. "Renewing the Face of the Earth: Human Responsibility and the Environment," 2009. <http://rowanwilliams.archbishopofcanterbury.org/articles.php/816/renewing-the-face-of-the-earth-human-responsibility-and-the-environment>.

From “dominion” to “in communion”

Ecotheology from an African perspective

James N. Amanze

This paper shows that in Africa the environment occupies a special place in the life and work of the African people. It is engraved in their religious systems. In the absence of legal frameworks to protect the environment, similar to those found in modern societies, many African communities have belief systems and practices that prevent people from degrading nature by imposing ethical injunctions in the form of taboos which, if broken, have immediate disastrous consequences. As a result, the relationship between nature and human beings in most African societies is one characterised by being “in communion” with nature and not dominating nature. The aspect of being “in communion” with nature has ensured the preservation of landmarks such as forests, hills as well as endangered animals, birds, and other natural resources. Consequently, the vast natural resources of Africa have been preserved for millions of years until modern times when we see a rapid destruction of natural resources through mining, deforestation, soil erosion, air and water pollution and the like in the name of modernity and economic development in contradistinction with African moral values.

This paper discusses the importance and religious significance of the environment in Africa focusing on the role that African traditional religions play in ensuring that the environment is preserved not only for the sake of future generations but also in order to ensure what we would now term today the balance of the ecosystem. The concern to protect the earth against human tendencies of desecrating the environment is as old as the African people themselves. African traditional religions, which form the substructure of all the religious faith that are found in Africa today, embody within themselves

certain beliefs and practices that protect the environment from human abuse and misuse thereby enhancing the conservation of natural resources. The paper intends to show that unlike the theology of “domination,” which is the hallmark of many capitalist economic systems in the world today driven by profit-making, African subsistence economies advocate the theology of being “in communion” with nature. This paper uses anthropological theoretical analysis because it provides the appropriate analytical tools of ecotheology from an African perspective. The paper begins by discussing the religious significance of land in African societies and then proceeds to give specific examples of how African traditional religions promote and enhance nature conservation in regard to trees, hills, animals, mountains and water through its beliefs and practices.

The religious significance of land in African spirituality

It is important to begin this paper by indicating the special place that land occupies in the life and thought of the African people. Several African scholars in modern times—chief among which is John S. Mbiti—have indicated that the African people are by nature religious or that they are notoriously religious.¹ Their religiosity permeates every sphere of life. There is no clear demarcation between the sacred and the profane, the spiritual and the secular. Their world view embraces both the spiritual and the material. Secular activities are generally guided by their spirituality. This is primarily true of the African peoples’ relationship with the land in which they live. In Africa land is considered as one of the most precious gifts that God gave to humankind because people are born on it and are buried in the bosom of the mother earth. As such, land connects the dead, the living and those yet to be born. God is conceived to be the sole owner of the land who has entrusted it to the living through the ancestors. Therefore, because God is acknowledged as the creator and owner of the land, it has a special place in the life of the African people. Because of its divine origin, some people give it divine attributes. For example, among the Ibo people of Nigeria, the earth is called *Ala*. She is considered the greatest deity after *Chukwu*, the heavenly creator. It is also held that *Ala* is very close to the people because the ancestors are buried in her bosom. She is the spirit of fertility for the family and land. People who are in need of children ask help from her. *Ala* is not only benevolent but can also punish those who disregard the moral values that bind the society together. According to Geoffrey Parrinder, in Africa,

1 John S. Mbiti, *African Religions and Philosophy* (London: Heinemann, 1969), 1.

land is generally considered sacred for it belongs to the earth-spirit and to the ancestors as well as the living community. In this context, attempts to sell and buy land are frowned upon and in the past it was almost impossible.²

It is important to note that the Ibo people are not the only ones who venerate the earth in this way. Another example can be drawn from the Ashanti people of Ghana who traditionally do not carry out work on land on Thursday. It is taboo, that is to say, forbidden because it is sacred to *Asase Yaa*—the Mother Earth. *Yaa* is the name given to women born on Thursday. In this regard, Ashanti farmers traditionally make offerings to God to ensure successful farming. The same applies when a grave is dug for the burial of the dead.³ In the same vein, Newell S. Booth has indicated that one of the views advanced by the Yoruba people of Nigeria is that the cosmos should be compared to two halves of a hollow, closed calabash—the lower part being the earth and the primeval waters, on which rests the habitable world, and the top half being identified with the sky. The two can never be separated. The implication of looking at the cosmos in this way is that to the Yoruba the earth is as important as the sky. As a matter of fact, among the Yoruba, one of their divinities, *Obatala*, is identified with the sky, while *Oduduwa* is identified with the earth. It is held that these two divinities represent the lower and upper halves of the calabash and it can be argued that they represent one androgynous deity.⁴

It is generally held among African scholars that the African people understand themselves as living in a unitary world, in which nature and people, both living and living-dead, are all under one creator-God. All elements of creation—land, plants, animals, non-living things and humanity are knit together and originating from one foundation. Africans understand themselves as part of God's creation and not outside of it. As a result, their life is lived in community comprising a network of human relationships of care, concern, and sharing involving humanity and nature. Within these relationships, Africans are aware that human beings occupy a special place in the created order. As people created by God they are stewards of creation and as such their task is to seek harmony and wholeness with nature and not to dominate nature. The earth is intended to provide a dwelling place for life and to nourish life in order that it may be abundant.⁵

2 Geoffrey Parrinder, *Religion in Africa* (Harmondsworth: Penguin, 1969), 53.

3 *Ibid.*, 54.

4 Newell S. Booth, “God and the Gods in West Africa” in *African Religions: A Symposium*, ed. N. S. Booth (New York: Nok Publishers, 1977), 164.

5 “Experiencing oneness, caring for all,” in *Women in a changing world* (Geneva: World Council of Churches, 1988), 4.

Dominique Zahan, in his analysis of African religion, has intimated that the natural tendency of African religion is to maintain a close contact with the cosmos. Zahan has further noted that the African religions' close relationship with nature explains the existence of natural landmarks that are scattered throughout the African continent through which the African people communicate with the divine. In the words of Zahan, "The human being thus lives in close contact with the universe; he lives in symbiosis with it and does not artificially separate himself from it at any moment of his existence."⁶ In other words, people live in communion with nature and ultimately are responsible to God for its use.

One of the most dominant views among the African people is that in order to live in harmony with nature, the natural world must be protected from all forms of defilement. This is because human defilement of the land such as cutting trees unnecessarily or breaking mortuary rites generates a state of hotness which ultimately leads to drought, which is a form of punishment from God. A good example can be drawn from the Bamalete people of Botswana who hold the view that in order for the land to be useful to human beings, it must remain constantly in the state of coolness. This generates good health, material prosperity, harmony, peace, social order, spiritual blessedness and most important of all rain.⁷ It is strongly believed among the Bamalete that the inhabited world is God's creation and that it has been given to human beings as a free gift. In this regard, human beings do not possess the land as their own personal property but act as trustees. It is believed that God entrusted the land to humankind through the ancestors for common use. In day to day living the chief and his advisors allocate land to the people who take care of it as common heritage. Traditionally therefore land is never sold and it is passed on to other people in the family.⁸

Traditional religions as deterrents to environmental degradation

Having discussed the special place that land occupies in the life and thought of the African people in this section we shall discuss how the environment is protected and preserved among the African people in the absence of a legal framework, particularly in rural areas which are the home ground of many traditional communities. Many of the traditional unwritten laws that are

6 Dominique Zahan, *The religion, spirituality and thought of traditional Africa* (Chicago: The University of Chicago Press, 1979), 20.

7 James N. Amanze, *African Traditional Religions and culture in Botswana* (Gaborone: Pula Press, 2002), 303.

8 *Ibid.*

used to protect the environment are based on traditional religious beliefs and practices and not on rules enforced by the police. This shows that African peoples’ spiritualities can help communities to conserve natural resources by seeing the hand of God at work in the cosmos. This section will discuss the conservation of trees, hills, animals and water as part of ecotheology.

The religious significance of trees and their preservation

It is important to note here that trees are considered as of special significance in the life and thought of the African people. This is particularly true in regard to forests. For example, Evan Zuesse has observed that the environment is sacrosanct to the Lele people who live on the southern fringes of the Congo forest. The forests that face their villages are considered as a medium of communication with the spiritual world. According to Zuesse, the forest is the Spiritual Other to the Lele. It is considered as the source of livelihood. Their economic prosperity is only possible if there is harmonious life in the village. It is held, for instance, that disputes between husbands and wives, or the clash between different clans, disturb the cosmic balance and may even result in the forest being closed to hunters. In this regard, in order to ensure the balance of the cosmic order, rituals are carried out before hunting expeditions in order to neutralise hostilities between individuals. In order to achieve a state of social harmony with the environment everyone must confess his/her anger and seek reconciliation with one’s enemies.

It should be noted that among the Lele people harmony with nature is not only desirable but also mandatory. According to Zuesse, success in their economic life requires real human and environmental solidarity in the fullest sense. Zuesse has further pointed out that among the Lele the forest is a mysterious domain and not to be desecrated in any way. This is evidenced by the fact that custom requires ritual chastity from everyone the night before a hunting expedition because they enhance the equilibrium that exists in village–forest relationships.⁹

John Mbiti has indicated that the concept of God among a number of African people is conceived of in terms derived from and linked with the forest. The praise names that they attribute to God include the following: The everlasting One of the forest; The One who clears the forest; The One who began the forest; and Master or Owner of the forest. Mbiti has pointed out that in a number of African cultural groups the forests are considered to be the manifestation of God’s presence and the abode of ancestral spirits.¹⁰

9 E. M. Zuesse, *Ritual Cosmos* (Athens: Ohio University Press, 1979), 63-64.

10 Mbiti, *African religions*, 80.

In this regard, many African people have sacred forests where they perform religious ceremonies for a variety of needs such as rain, fertility of the land, child bearing, peace and the like.¹¹ Certain trees in the forest where sacrifices, offerings and prayers are made are considered sacred. In most cases such forests are protected and thus become a sanctuary of plants, birds and animals. Such protected landmarks become environmental issues. People are not allowed to cut wood or burn grass as they like because it will provoke the anger of the spirits.¹² This is the case, for example, among the Chewa people of Southern Malawi who locate the land of the departed in the woods and forests. They also have special forests where they pray for rain in times of droughts.¹³

It is interesting to note that a number of myths of creation of some African peoples such as the Herero, Nuer, Sandawe and others hold that the first human beings emerged either from a hole at the foot of a tree or dropped off the branches of a tree. In this way, the link of trees with human beings places them in a special relationship with one another. Because of this special relationship certain trees, such as sycamore trees, wild fig trees, baobab trees and others are used as alters for offerings and sacrifices to God. It is here that prayers are made for the well being of the people and their nations.¹⁴

In the same vein, among the Pare people, who live in north-eastern Tanzania, trees occupy a special place in their religious life. According to Isaria Kimambo and C. K. Omari, the baobab is the most common sacred tree among the Pare. The Pare people claim that the first ancestor brought such a tree with him and planted it at his first settlement as a "sacred" sign for the founded community.¹⁵ Great respect for trees is also shared by a number of people in Southern Africa. This is the case among the Batswana of Botswana among whom the author has carried out a great deal of empirical research.¹⁶ In Botswana the conservation of trees is not only sanctioned by the letter of the law but also by indigenous religious beliefs. The chiefs, as custodians of the environment, represent the will of the ancestors and their word is law *de facto* and *de jure*. For example, among the Bakgatla the *morula* tree is not

11 Amanze, *African Traditional Religion and culture*, 298.

12 Mbiti, *African religions*, 32.

13 See James N. Amanze, *African Traditional Religion in Malawi* (Blantyre: CLAIM, 2002) where this has been discussed in detail.

14 Mbiti, *African religions*, 93-94.

15 I. N. Kimambo and C. K. Omari, "The development of religious thought and centres among the Pare" in *The Historical Study of African Religions*, ed. T. O. Ranger and I. N. Kimambo (London: Heinemann, 1972), 145-46.

16 See Amanze, *African Traditional Religion and culture*, 316.

supposed to be cut during the rainy season. It is considered as a female tree therefore associated with the fertility of the land. It is believed that cutting down the *morula* tree can bring bad omen to the harvest. This taboo is based on the belief that cutting female trees brings very strong winds, hailstones, thunder and lightning, which can destroy houses and cause injury to people.¹⁷ Interestingly, this belief is shared by many ethnic groups in Botswana such as the Bakwena, the Bakgatla the Bangwato to name a few. Among these people, trees that are not supposed to be cut include (among others): *mothwane*, *morobe*, *mosetlha*, *monokwane*, *mosalawesi*, *mongana*, *mosu*, *moretlwa*, *motsintila*, *motlhakola*, *motawana*, *nzeze*, *mokgalo* and *mmilo*.¹⁸

It should be borne in mind that in most cases trees are preserved because in many African societies traditional healing and traditional medicines are still in vogue. Traditional healers usually claim that their medicinal knowledge which involves the use of certain medicinal trees was given to them by God through the ancestors. This is the case among the Basarwa people (traditionally known as Bushmen) who live in modern day Botswana. The Basarwa conceive their ancestral land—the Kgalagadi Desert—as a big hospital or a medical theatre capable of handling all kinds of diseases. As such, a number of trees such as Devil’s claw (grapple plant, *Harpagophytum procumbens*) are used for the treatment of a variety of diseases such as rheumatism, arthritis, hypertension, kidney, gall and liver dysfunction, stomach and intestinal disorders and skin problems.¹⁹

The religious significance of hills

Hills also occupy a special place in the religious life and spirituality of the African people. They are associated with mystical power and in most cases are considered as the abode of the ancestral spirits. This is fairly common in Africa. For example, among the Chewa people of Malawi, there is a hill called Kaphirintiwa. This hill is associated with the appearance on earth of the first pair of human beings. It is held that when the first human beings were created in heaven they were alighted there when the world was still soft and that their footprints can be seen even today. It is therefore considered as sacred and protected with taboos.

Other examples of the sacred nature of hills can be drawn from Botswana. For example, among the Bangwato, Bosupe Hill in Serowe, which means “do

¹⁷ *Ibid.*, 305.

¹⁸ *Ibid.*, 305-07.

¹⁹ James N. Amanze, “Land and the spirituality of indigenous people in Africa: A case study of the Basarwa of the Central Kalagari Game Reserve in Botswana,” *Boleswa Journal of Theology, Religion and Philosophy*, 1 (2007): 37.

not point your finger at it" is considered a sacred place. There is a belief that if a person pointed his or her fingers to it he or she would get lost in the jungle.²⁰ Another example of a sacred mountain is found among the Balete at Otse in southern Botswana. It is called *Lentswe la Baratani* which means "The Mountain of Lovers." In Balete eschatology Baratani is associated with rest, happiness, and better still, fulfilment. This is because the top of the mountain is considered as the abode of the ancestral spirits who in their present state do not worry about anything. They are free from ordinary material concerns. There on Baratani no one can do them harm. They are out of reach. They are transcendent. They have joined the community of those who "have left us" (*Ba ba re tlogetseng*) or disappeared (*Ba batlhokafetseng*).²¹ Other hills considered sacred in Botswana include, among others, Kgwakgwe Hill among the Bakwena, Tswapong Mountains among the Batswapong people and Tsodilo Hills in Ngamiland.

The religious significance of animals

Animals in Africa are also held as crucial in the lives of people as part of their food chain. This is possibly because many African societies are pastoralists. Many of them have the habit of keeping cattle, goats, sheep, fowl, dogs, donkeys and even horses. Since many African societies are pastoral as well as agricultural, there is a very close connection between human beings and animals and between human beings and their natural resources. It has been observed by some scholars that pastoralism has developed a unique dependence between human beings and beasts. Professor J. L. Myres has pointed out that, by and large, pastoral societies keep their cattle healthy and safe and in this respect it can be argued that it is the animals that have domesticated human beings. According to Myres, in pastoral society human beings and animals are co-partners and this peculiar relationship profoundly influences the life of the human as well as animal members of such communities. In such a partnership there is a deep sentimental attachment between human beings and their animals and neither partner in this composite mode of life can maintain itself apart from the other.²²

Gunter Wagner in his study of the economic system of the Herero people in Namibia has shown that among this group of people cattle have social as well as religious significance. Those who have cattle consider themselves not

20 Amanze, *African Traditional Religion and culture*, 310.

21 *Ibid.*, 310-13.

22 Gunter Wagner, "Some economic aspects of Herero life," *African Studies* 13 (1954): 117.

as owners but merely trustees of the cattle.²³ My own research among the Furutshe people in Botswana shows that among this group of people there are certain animals that are considered sacred. These are the giraffe (*thutlwa*) and the buffalo (*nare*). In order to kill these animals permission has to be sought from the chief. Among the Bamalete people in Botswana there are also certain animals which are protected by taboos because they are considered sacred and cannot be killed indiscriminately. These are python (*tlhware*), and bull (*poo*). These animals are not supposed to be killed during the ploughing season. It is believed that if a person killed these animals such a sacrilege would bring hailstones.²⁴

There are also certain animals among the Bamangwaketse people of Botswana which are believed to belong to the chief and his ancestors. These are the eland (*phohu*) and gemsbok (*kukama*). These are taken to be royal animals and in the past they were killed only for the chief (*kgosi*) and not for ordinary people. The main purpose of this prohibition is to protect these animals from extinction. There are certain birds that are not supposed to be killed. One of these is the owl. It is believed that killing it can bring misfortune in the life of a person such as illness and death. The only explanation here is that such a belief protects the owl from extinction.²⁵

The religious significance of water

Finally, this discussion on the religious significance of the environment would be incomplete without discussing the unique role that water plays in the life of the African people. Water is very scarce in Africa. In this regard, it has high religious value. Zahan has indicated that springs, streams, rivers, lakes and ponds constitute the great “aquatic temples” of African religions. Each one possesses its own theological meaning.²⁶ The theological significance of water is evident in the religious thought of the Azande people of Sudan. According to Evans-Pritchard, the Azande attribute to springs the ideas of death and rebirth.²⁷

It should be noted that in Africa, bodies of water are sometimes considered to be the residence of ancestral spirits. In this regard, a number of African religious rituals are performed near water or, at least, involve the use of water. Water has a great association with fecundity of land, plants, animals,

²³ *Ibid.*, 119.

²⁴ Amanze, *African Traditional Religion and culture*, 309.

²⁵ *Ibid.*, 310.

²⁶ Zahan, *The religion, spirituality and thought*, 20.

²⁷ *Ibid.*

and human beings. In this way water is associated with femininity and consequently the proliferation of human beings. According to Zahan, in Africa some ponds and lakes are associated with the origin and creation of human beings and the world. For example, among the Venda people in South Africa, Lake Fundudzi represents the very place of creation, the primordial womb.²⁸ Michael Gelfand in *Shona Religion* has pointed out that among the Shona of Zimbabwe water is associated with life. The production and germination of seeds depend on water. Water purifies, restores, cleanses, and regenerates. Water is the universal mother, the essence and soul of life. Among the Shona the pool represents a sacred place for tribal spirits or deities.²⁹ As a result, water is used with care.

The importance and religious significance of water is also evident in the religious life of the Edo people in Nigeria. Paula G. Ben-Amos, in her study of the Okun cult has observed that among the Edo water is considered the primordial substance that once covered the world and from which land first emerged. The Edo consider the Okun River in the south-eastern part of the Benin Kingdom as the source for all the rivers and oceans of the world. According to Edo religious thought, the paths to the spirit world lie across the waters and the souls of those who have died as well as those about to be born must pass over the waters.³⁰ All in all water, as the origin of human life is considered by the African people as the greatest gift that God gave to human beings on earth it must, therefore, be used responsibly and conserved for future generations.

Conclusion

In conclusion, this paper has discussed the religious significance of the environment from an African perspective. It has shown how the African people in their traditional settings endeavour to conserve and preserve natural resources in order to protect them from depletion. In the absence of legal framework in most indigenous societies in Africa this is achieved through African traditional religions which contain beliefs and practices in the form of taboos and prohibitions that ensure that the environment is not degraded despite the introduction of modern capitalist economies. These traditional beliefs and practices are so effective that they have enabled the African people

28 *Ibid.*, 21-22.

29 Michael Gelfand, *Shona Religion* (Cape Town: Juta Company, 1962), 151.

30 Paula G. Ben-Amos, "The promise of greatness: women and power in an Edo Spirit possession cult" in *Religion in Africa*, ed. T. D. Blakely *et al.* (Portsmouth: Heinemann, 1994), 19-20.

to preserve their natural resources without recourse to force. The concept of land as personal property which can be sold and bought at one's will is basically foreign to Africa and was introduced in the continent during the colonial period. As a result, we have today in many African countries legal frameworks imposed by governments which involve the use of the police force. Theologically, the Africans advocate a theology of “in communion” with nature. This theology is conducive to nature conservation something it has done for thousands of years. It appears to me that the African people are aware that their continued existence in time and space depends to a large extent to their harmonious existence with the “mother earth” which needs to be treated with love and care for the common good of the society at large.

James Nathaniel Amanze (amanzejn@mopipi.ub.bw) is Professor in the Department of Theology and Religious Studies, University of Botswana, Private Bag 0022, Gaborone, Botswana and also Canon Theologian and Principal of St. Augustine Theological School in the Anglican Church, Diocese of Botswana, in the Province of Central Africa. He holds a Master's Degree in Theology from Oxford University and a PhD in Religious Studies from the University of London. He is currently teaching Systematic Theology at the University of Botswana.

References

- Amanze, James N. *African Traditional Religion in Malawi: The case of the Bimbi Cult*. Blantyre: CLAIM, 2002.
- . *African Traditional Religions and culture in Botswana*. Gaborone: Pula Press, 2002.
- . “Land and the spirituality of indigenous people in Africa: A case study of the Basarwa of the Central Kalagari Game Reserve in Botswana.” *Boleswa Journal of Theology, Religion and Philosophy* 1 (2007): 97-115.
- Ben-Amos, Paula G. “The promise of greatness: women and power in an Edo Spirit possession cult.” In *Religion in Africa*, edited by Thomas D. Blakely, Walter E. A. van Beek, and Dennis L. Thomon. Portsmouth: Heinemann, 1994.
- Booth, Newel S. “God and the Gods in West Africa.” In *African Religions: A symposium*, edited by N. S. Booth. New York: Nok Publishers, 1977.
- “Experiencing oneness, caring for all.” In *Women in a changing world*. Geneva: World Council of Churches, 1988.
- Gelfand, M. *Shona Religion*. Cape Town: Juta Company, 1962.
- Kimambo, I. N., and C. K. Omari. “The development of religious thought and centres among the Pare.” In *The historical study of African Religions*, edited by T. O. Ranger and I. N. Kimambo. London: Heinemann, 1972.
- Mbiti, J. S. *African Religions and Philosophy*. London: Heinemann, 1969.
- Parrinder, Geoffrey. *Religion in Africa*. Harmondsworth: Penguin, 1969.
- Wagner, Gunter. “Some economic aspects of Herero life.” *African Studies* 13 (1954), 117-30.
- Zahan, Dominique. *The religion, spirituality and thought of traditional Africa*. Chicago: The University of Chicago Press, 1979.
- Zuesse, E. M. *Ritual Cosmos*. Athens: Ohio University Press, 1979.

All things bright and beautiful?

*Toward an aesthetic ecotheology*¹

Mick Pope

Doestoevsky claimed that beauty will save the world. As the natural world faces the challenges of the Anthropocene, it is appropriate to ask how natural beauty might save the world from human beings. This paper develops an aesthetic ecotheology based upon four key ideas. Firstly, beauty is generated by entirely natural processes, in particular, evolution by natural selection. Secondly, aesthetic appreciation by humans and non-humans is shaped by evolutionary processes. Thirdly, for beauty to be a useful concept for ecology in general, and ecotheology in particular, it must be an emergent, non-reductive property. In particular, beauty must be grounded in God, *i.e.*, a sacramental concept, transcending the merely evolutionary. Finally, an aesthetic ecotheology must be both global and local in nature such that it takes the particular seriously. In the Australian context, this means that aesthetic ecotheology must be attentive to the local environment and Indigenous aesthetic sensibilities.

Can beauty save us?

It is estimated that human beings share the Earth with approximately 8.7 million species.² However, we are not sharing very well. The present geological era has been described as the Anthropocene, where human beings are a dominant geological force.³ We have breached, or are breaching,

1 This article is a revised version of a paper given at “Care for all that exists: A Symposium on Creation Spirituality,” a symposium of the Carmelite Centre, Middle Park, Melbourne, 26–28 May 2016.

2 Camilo Mora, Derek P. Tittensor, Sina Adl, *et al.*, “How many Species are there on Earth and in the Ocean?” *PLOS Biology* 9 (2011): 1-8.

3 Simon L. Lewis and Mark A. Maslin, “Defining the Anthropocene,” *Nature* 519 (2015): 171-80.

nine planetary boundaries, defined as providing a safe operating space for humanity.⁴ In particular, the present age may be characterised as a sixth mass extinction event, with rates of extinction estimated to be in the order of 100 times that of the background rate. Extinction is driven by climate change, ocean acidification, habitat loss, over-fishing, and hunting, *etc.*⁵ Furthermore, there is a continuing urbanisation of the human population, with 2014 statistics stating that 54% of the world lives in urban areas, with 80% in OECD countries.⁶ Human beings in many parts of the world are increasingly becoming alienated from nature.

One window to the natural world, or creation, is wildlife documentaries. In particular, those of the BBC Natural History Unit, for over 50 years narrated by David Attenborough, provide both an intellectually and aesthetically stimulating presentation, compared to some other programming.⁷ Does the appeal of such documentaries suggest a role for beauty in motivating people to care for nature? Does aesthetics have a role to play in ecotheology? Given pragmatic concerns over the preservation of ecosystem services such as oxygen production, clean water, carbon storage, *etc.*, or issues of ecojustice, are aesthetic considerations frivolous?

Kathryn Alexander ponders Dostoevsky's suggestion that beauty will save the world. If so, the beauty of the natural world will play a role in saving it from us. Nature must be a source of spiritual insight, one with the power to move us. Alexander develops a theological aesthetics which recognises that the experience of the beautiful has a religious dimension, *i.e.*, the beautiful in creation has something to say to our souls.⁸ This paper will examine such an idea from a perspective grounded both in science and creation theology.

What is beauty?

Richard Austin defines beauty in the following way:

We use the word beauty to express a range of sensory, intellectual, and personal experiences. We may think first about visual images,

- 4 Will Steffen *et al.*, "Planetary Boundaries: Guiding Human Development on a Changing Planet," *Science* 347 (2015): 1-17.
- 5 Elizabeth Colbert, *The Sixth Extinction: An Unnatural History* (London: Bloomsbury, 2014).
- 6 United Nations, Department of Economic and Social Affairs, Population Division (2015). *World Urbanization Prospects: The 2014 Revision* (ST/ESA/SER.A/366).
- 7 For a theological critique of wildlife documentaries, see Mick Pope, "S141 Christ and the Camera Lens: A Theology of Wildlife Documentation," *Zadok Paper Series*, Spring 2005.
- 8 Katherine B. Alexander, *Saving Beauty: A Theological Aesthetics of Nature* (Minneapolis: Fortress Press, 2014), 9-12.

the beauty of a sunset, a flower, a painting, but we know beauty just as well through our other four senses: the beauty of a song, the pleasing aroma from a flower, the taste of a favorite food, the beauty of touching the matted grass with our feet.⁹

As is common with definitions of beauty, Austin focusses on the human senses and our experience of those senses, rather than the thing experienced in itself. Aesthetics, the study of beauty, is usually therefore anthropocentric. Austin goes on to note how for Kant, our experience of beauty is a “disinterested delight.” One may ask however, how such disinterest will serve the cause of conservation? A disinterested approach to beauty can lead to beautiful things becoming objects to be possessed rather than appreciated and enjoyed on their own terms, or even related to as subject rather than object. This is one factor in trophy hunting, the desire to kill animals for the experience and collection of a stuffed, lifeless trophy. The collection of beauty has also been observed in the sometimes obsessive collection of butterflies, which has been implicated in the decline of some UK species.¹⁰ Beauty can also lead to sentimentality and the triviality of the cute. Iconic species are adopted by conservation organisations for logos, fundraising, *etc.* This can take attention away from more important keystone species in ecosystems. When Christian ecotheology focusses on traditional ideas of beauty, it leaves itself open to mockery, as Monty Python did with their send up of the hymn *All Things Bright and Beautiful*, entitled *All Things Dull and Ugly*:

All things dull and ugly, All creatures short and squat,
All things rude and nasty, The Lord God made the lot;
Each little snake that poisons, Each little wasp that stings,
He made their brutish venom, He made their horrid wings.¹¹

However, it is clear that beauty possesses real power to move the human heart. On the capture of a new species of birdwing butterfly on Batchian Island in Indonesia, Alfred Russell Wallace recorded the following:

The beauty and brilliancy of this insect are indescribable, and none but a naturalist can understand the intense excitement I experienced when I at length captured it. On taking it out of my net and opening the glorious wings, my heart began to beat violently, the blood rushed

9 Richard Cartright Austin, “Beauty: A Foundation for Environmental Ethics,” *Environmental Ethics* 7 (1985): 197-208.

10 Stephen Cheshire, “Collecting Butterflies,” British Butterflies. Accessed June 20, 2016. <http://www.britishbutterflies.co.uk/collecting.asp>.

11 Graham Chapman *et al.*, “All Things Dull and Ugly,” in *Monty Python’s Contractual Obligation Album* (New York City, NY: Charisma, 1980).

to my head, and I felt much more like fainting than I have done when in apprehension of immediate death. I had a headache the rest of the day, so great was the excitement produced by what will appear to most people a very inadequate cause.¹²

Wallace notes how the profession of a naturalist can intensify the discovery of beauty, and that such an encounter can be extremely intense for some, although by no means all. Science and beauty are not opposed, while the old maxim that “beauty is in the eye of the beholder” remains. In an earlier work, I briefly discussed another quote from Wallace which highlights a number of issues with a theological approach to natural beauty:

I thought of the long ages of the past during which the successive generations of these things of beauty had run their course. Year by year being born and living and dying amid these dark gloomy woods with no intelligent eye to gaze upon their loveliness, to all appearances such a wanton waste of beauty. It seems sad that on the one hand such exquisite creatures should live out their lives and exhibit their charms only in these wild inhospitable regions ... This consideration must surely tell us that all living things were not made for man, many of them have no relation to him, their happiness and enjoyments, their loves and hates, their struggles for existence, their vigorous life and early death, would seem to be immediately related to their own well-being and perpetuation alone.¹³

This quote raises four areas for discussion. The first is that evolution must be the proximate generative mechanism for beauty; the birds of paradise about which Wallace wrote are beautiful for their own purposes, to attract a mate to propagate their genes. Secondly, evolution generates the faculties to make aesthetic judgement, both in humans and non-humans. Thirdly, given that evolutionary theory is usually presented as reductionist and materialistic in nature, the concept of beauty collapses into epiphenomena, *i.e.*, all things reduce to mere physical description of facts. Values do not exist. Hence, while evolution forms a bottom up description of beauty, theology is required as a top down approach to explain why beauty is real. Fourthly, Wallace’s “no intelligent eye” clearly excludes the native Papuans, considering them to live in “hopeless barbarism.”¹⁴ This is a colonialist, Eurocentric conceit on Wallace’s part, ignoring the full humanity of the Papuans and their obvious

12 Alfred Russell Wallace, *The Malay Archipelago* (Singapore: Periplus 2000), 257-58.

13 *Ibid.*, 340. Discussed in Mick Pope, “The Earth is Full of your Creatures: A Theology of Wilderness,” *Anglican EcoCare Journal of Ecotheology* 1 (2014): 65-78.

14 Wallace, *The Malay Archipelago*, 340.

aesthetic taste, demonstrated in their making headdresses from the bird's feathers. Ecotheology must be contextual and post-colonial, learning to see beauty through indigenous eyes. In the Australian context, this will mean learning to see beauty through Aboriginal eyes. Each of these four ideas are discussed below.

The evolution of the beautiful

Beauty, along with truth and goodness, forms part of the ancient Greek triad of values. A value in philosophy is whatever gives pleasure.¹⁵ Beauty is the value perceived directly by the senses. Alexander Skutch identifies beauty as harmony between a value-generator via (primarily) sight and sound, and a perceptive spirit or value-enjoyer. Therefore, according to Skutch, there is no value in a lifeless world, because there is no value-enjoyer to perceive the value-generator.¹⁶ This section considers the evolution of value-generators.

One way of considering the evolution of value-generators is to use Murphy and Ellis's hierarchy of levels.¹⁷ The hierarchy of levels approach considers physical phenomena at multiple and complementary levels of description. This approach is non-reductive, in that higher levels of the hierarchy introduce new information, but it is also bottom-up approach, higher level of descriptions requires the laws of nature at the lower level. The lowest section of the hierarchy of description consists of the disciplines of physics → chemistry → biology. Physics refers to the laws that describe the behaviour of the fundamental units of matter. For molecules, including organic molecules, the laws of chemistry are required. Biology then describes the behaviour of the complex chemical systems that we define as alive. We can see that each higher level of description introduces new ideas, but it dependent on the lower level as well.

When considering the evolution of beauty, we note that the existence of value-generators requires the laws of physics. For example, the laws of electromagnetism describe the behaviour of light; its transmission, absorption, reflection, *etc.* Light allows beauty to be perceived visually. Likewise, the physics of acoustics facilitates the generation, transmission, and reception of beautiful sounds. Both chemistry and physics are involved in the diffusion of organic molecules that generate smells. Building on the lower section of

15 Alexander Skutch, *The Origins of Nature's Beauty* (Austin, TX: University of Texas Press, 1992), 6.

16 *Ibid.*, 7.

17 Nancey Murphy, and George F. R. Ellis, *On the Moral Nature of the Universe* (Minneapolis, MN: Fortress Press, 1996), 204.

the hierarchy of description, one branch considers increasingly larger scales of organisation of nature which we can consider as value generators, namely the disciplines of ecology/geology → astrophysics → cosmology. Some of these value generators are shaped by interaction with value enjoyers, and some are not. The other branch of the hierarchy of description examines the increasing organisation and development of cognition and human society, including value-enjoyment; psychology → social & applied studies → ethics. In what follows, we will consider what influences the development of value generators, *i.e.*, levels of hierarchy along the first branch.

Value generators that are not shaped by interaction with value enjoyers (apart from God) are objects we consider to be beautiful that have obtained their beauty in a way entirely incidental to their function, and without direct influence from another living being. The blue sky did not acquire its colour to please us but is a function of its composition and the physics of light.¹⁸ While we might take delight in the stars, a pretty sunset, or waterfalls, according to Skutch, astronomical, atmospheric and hydrological features all preceded conscious eyes and therefore are not for human enjoyment.¹⁹ When considering living organisms, we find both observer independent and observer-selected features. The arrangement of leaves and tree branches is functional, for gathering light, limiting evapotranspiration, the drainage of water, *etc.* The beautiful reds and yellows of dying leaves are incidental to the process of defoliation for winter. Environmental factors like water or air shape the aerodynamic sleek shapes of dolphins or birds.²⁰ All of these things can be perceived as beautiful, but their generative mechanism has nothing to do with the interaction with other living organisms, or human enjoyment.²¹

Other influences on the evolution of organic value-generators come not from human aesthetic appreciation, but via natural selection pressures. Some animals have evolved coloration and patterning for camouflage, *i.e.*, hiding from predators, whereas the colouration of others is for thermoregulation via the absorption or reflection of heat. There are those animals that have evolved toxins in their skins, and their coloration warns predators of this. Poison arrow frogs are an example of this, as are a number of butterflies. Flowers evolved to attract pollinators, and often have features that are only visible in the ultraviolet; invisible to humans but not to birds or insects. Some male birds possess elaborate plumage, or artistically design bowers, to attract

18 Skutch, *Origins*, 2.

19 *Ibid.*, 3.

20 *Ibid.*, 5.

21 *Ibid.*, 4.

a mate. Such aesthetic features are signs of reproductive fitness and have been shaped by sexual selection. Gracile forms of prey species and the physique of predators are produced by the competition of predation.²²

We can see then, that things we perceive as beautiful have developed either by physical laws independent of observers, or via evolutionary processes that does not involve humans as value-enjoyers. How then did humans come to be value-enjoyers?

Biophilia and the origins of aesthetic judgement

Why do we find things in nature beautiful? The sky or the green earth did not acquire their colours to please us. Skutch believes that the pleasure that we take in them is an adaptation. If we were to find such natural features persistently ugly or forbidding, we would become depressed and our health would be impaired.²³ E. O. Wilson has developed the concept of *biophilia*, that “the urge to affiliate with other forms of life is to some degree innate.”²⁴ Biophilia is driven by evolution, and human origins in the African savanna affect modern aesthetic choices.²⁵ This biophilic tendency is in tension with our desire to separate and be safe from nature, driven by an interaction between evolution and human culture:

Over thousands of generations the mind evolved within a ripening culture, creating itself out of symbols and tools, and genetic advantage accrued from planned modifications of the environment. The unique operations of the brain are the result of natural selection operating through the filter of culture. They have us suspended between the two antipodal ideals of nature and machine, forest and city, the natural and the artificial.²⁶

Wilson claims that biophilia is “clearly evinced in daily life and widely distributed as to deserve serious attention.” It appears in the “predictable fantasies” of individuals and “cascades into repetitive patterns of culture,” including the human tendency to venerate and hold in awe the serpent in various religions.²⁷ We recreate savanna-like habitats in formal gardens,

22 Holmes Rolston III, “Disvalues in Nature,” *The Monist: An International Quarterly Journal of General Philosophical Enquiry* 75 (1992): 270.

23 Skutch, *Origins*, 2.

24 E. O. Wilson, *Biophilia* (Cambridge, MA: Harvard University Press, 1986), 85.

25 *Ibid.*, 109.

26 *Ibid.*, 12.

27 *Ibid.*, 85.

cemeteries, malls, Japanese gardens, *etc.* We prefer open but not barren areas, for savannas offered food, an open view to detect danger. Some topographic relief is preferred such as cliffs (caves for shelter) and water features (for drinking).²⁸ Such preferences are seen in European settler attitudes to North American landscapes. Wilson cites Captain R. B. Marcy's observations of the Brazos River in 1849 as an example:

"... It was a perfectly level grassy glade, and covered with a growth of large mesquite trees at uniform distances, standing with great regularity, and presenting more the appearance of an immense peach orchard than a wilderness." This was "as beautiful a country for eight miles as I ever beheld."²⁹

Wilson recognises that the warmth of kinship with other creatures, right-sounding moral strictures, or economic arguments are not enough to care for biodiversity. Instead, he believes we require a new and more powerful kind of moral reasoning based on biophilia.³⁰ But does this evolved sense of aesthetic hold up to scrutiny? As presented by Wilson, biophilia and its evolutionary aesthetic are reductionist. Elegance is a key feature of scientific theory and aesthetic experience. Rather than lying in the value-generator, Wilson believes that elegance is located entirely in the human mind. He comments that:

Elegance is more a product of the human mind than of external reality. It is best understood as a product of organic evolution. The brain depends on elegance to compensate for its own small size and short lifetime.³¹

He further claims that beauty is a device "by which human beings get through life with the limited intellectual capacity inherited by the species. Like a discerning palate and sexual appetite, these esthetic contrivances give pleasure."³²

Beauty is a trick, a contrivance. Why then should we trust it, value it, base our ecological ethics or ecotheology on it? Wilson seems somewhat confused on this. On one hand he says that to understand evolution requires a bottom up approach, which requires "knowledge of each of the levels of organisation

28 *Ibid.*, 110-11.

29 *Ibid.*, 112.

30 *Ibid.*, 138-39.

31 *Ibid.*, 60.

32 *Ibid.*, 61.

sufficient to account for the one directly above it.” This is a reductionist argument, for descriptions at one level of the hierarchy are reduced to the level below. Such reasoning eventually lead us to reducing everything to physics, making beauty an illusion. However on the other hand, Wilson recognises, for example, that while molecular biology is necessary for understanding biological systems, it is not sufficient to define higher levels of organisation.³³ He argues against Tennyson who claimed that “Science grows and Beauty dwindles” and Keats who said that “Philosophy will clip an Angel’s wings” and “unweave a rainbow.” Wilson claims that science is not simply analytic and hence reductionist, but also synthetic; putting things back together.³⁴ But does this work for beauty?

Beauty as emergent

Crudely speaking, the idea of emergence claims that the whole is greater than the sum of its parts. Stuart Kauffman uses it atheologically, suggesting that the word God describes the “natural creativity in the universe,” not an interventionist deity.³⁵ Murphy and Ellis however, see emergence as coherent with theistic belief. More technically, emergence refers to “the appearance of properties and processes that are only describable by means of irreducible concepts, concepts that are similarly inapplicable at the lower levels of order.”³⁶

Epistemological emergence claims that while lower level descriptions of higher level phenomena are possible, new knowledge is generated at the higher levels, *i.e.*, we learn new things we would not otherwise have discovered with a lower level description. Consider the evolution of the human heart. It could be theoretically possible for a physicist to use particle physics to simulate the evolution of the heart, but only a biologist could explain that its function is to pump blood, not make a thumping sound.³⁷

Kauffman claims that emergence is also ontological, *i.e.*, genuinely new things emerge from lower orders of description, without being reducible to the lower order. Furthermore, the higher level can produce downward causation; *e.g.*, a piston can influence the behaviour of a gas inside, consciousness can influence brain states. Briefly, ontological emergence arises from the fact that the present state of the biosphere is always an under-representation of the

³³ *Ibid.*, 44.

³⁴ *Ibid.*, 54.

³⁵ Stuart Kauffman, *Reinventing the Sacred: A New View of Science, Reason and Religion* (New York: Basic Books, 2010), iii.

³⁶ Murphy and Ellis, *Moral Nature*, 22.

³⁷ Kauffman, *Reinventing the Sacred*, 34.

possibilities from the past state of things, and predictions of the future of biosphere will never be known with accuracy, because the full suite of initial conditions can never be specified. Kauffman therefore suggests that the evolution of the biosphere is partially lawless, since physical laws represent a compression of all known facts, past, present and future. If we cannot know all of the necessary past and present facts to determine the future, then the evolution of the future is partially lawless. The largest computer that could be constructed to state the future condition of the universe is the universe itself—so whatever appears is genuinely new.³⁸

Kauffman also argues that meaning and agency are naturally emergent concepts. Take for example, a bacterium swimming in a solution of glucose that also contains a toxin. The bacterium values glucose as a food source and needs to avoid the toxin. It therefore senses signs (glucose and toxin concentrations) and can interpret them as key to its survival. It shows autonomy by changing its course in the solution towards optimum values. Now none of this behaviour is conscious, but demonstrates a low level analogue for conscious evaluation of signs, values and subsequent choice. Beauty is then a value that emerges out of this yum (food is good) and yuck (toxins are bad) way of evaluating our environment.³⁹

Theology and the ground of beauty

Even if we adopt emergence as a solution to the problem of reductionism, it still appears as a mechanistic sleight of hand. This problem requires a top down solution, where both the branches of the hierarchy of description meet at the top in metaphysics or theology.⁴⁰ God supervenes and drives the process of the emergence of beauty. Just as Alexander wants to tie beauty to salvation, so Pinnock notes that the “Spirit is present everywhere, directing the universe towards its goal, bringing to completion for the creational and then the redemptive purposes of God.”⁴¹

Beauty existed before humans because God was leading the universe towards beauty at its various levels from the top down, and observes it Godself at every stage, *i.e.*, God is both the divine value-generator and value-enjoyer. As the Psalmist notes:

38 *Ibid.*, 37.

39 Stuart Kauffman *et al.*, “Propagating Organization: An Enquiry,” *Biology & Philosophy* 23 (2008): 27–45.

40 Murphy and Ellis, *Moral Nature*, 204.

41 Clark H. Pinnock, *Flame of Love: A Theology of the Holy Spirit* (Downers Grove, IL: IVP, 1996), 50.

O LORD, how many are Your works!
 In wisdom You have made them all;
 The earth is full of Your possessions.
 There is the sea, great and broad,
 In which are swarms without number,
 Animals both small and great.
 There the ships move along,
 And Leviathan, which You have formed to sport in it.
 Let the glory of the LORD endure forever;
 Let the LORD be glad in His works.⁴²

John Walton claims that Scripture portrays creation as a temple, and he provides two key pieces of exegetical evidence. Firstly, the divine rest at the end of the first creation account (Genesis 2:1-3, with Exodus 20:11) is associated with the dwelling place of God in the Jerusalem temple (Psalm 132:6-8). God's rest is not a cessation from all work, but a taking up of residence to rule.⁴³ Secondly, human beings are the last act of creation, and hence it follows that they are installed in the temple-cosmos as divine images or idols, to represent God to creation.⁴⁴ While the first creation account is a demythologising one, *i.e.*, it de-divinises the elements of creation, its status as temple-cosmos means that creation is sacred.

The idea of creation as a temple is consistent with two ideas found in some Reformed thinkers, as Belden Lane observes.⁴⁵ Firstly, *Dei gloriae* is the concept that the praise of God's glory is the chief end of all creation, not just humanity (Psalms 19, 96). The second is *Sacramentum mundi*; the Earth is a sacrament of God's presence. Lane notes that this sacramental praise is always local, contextual, and specific to the local ecology. However, he worries that *Sacramentum mundi* can reduce the creature to nothingness in the process of enhancing divine transcendence, quoting John Calvin:

Correctly then is this world called the mirror of divinity; not that there is sufficient clearness for man to gain a full knowledge of God, by looking at the world, but ... the faithful, to whom he has given eyes, sees sparks of his glory, as it were, glittering in every created thing.⁴⁶

42 Psalm 104:24-26, 31 (NASB).

43 John Walton, *The Lost World of Genesis One: Ancient Cosmology and the Origins Debate*, (Leicester: IVP, 2009), 71-74.

44 John Walton, *The Lost World of Adam and Eve: Genesis 2-3 and the Origins Debate* (Downers Grove, IL: IVP, 2015), 104-115.

45 Belden Lane, *Ravished by Beauty: The Surprising Legacy of Reformed Spirituality* (Oxford: Oxford University Press, 2011).

46 *Ibid.*, 54.

An aesthetic ecotheology needs to balance two ideas. On the one hand, nature is a mirror, reflecting the divine glory of the creator. It is of value in theological reflections in pointing us to God. Secondly, nature is like a stained glass window, as Bonaventure suggested.⁴⁷ The divine glory shines through it, making it beautiful in its own, unique and individual manner. Without this divine light, the beauty cannot be properly apprehended. In this way, we can truly be value-enjoyers as God's divine image bearers, and hence better care for the beauty that God has created.

It is also worth noting that the forward-leading work of the Spirit via evolutionary process should result in aesthetic appreciation in non-humans. Evolution is emergent but also convergent, in that similar features appear in different creatures in similar contexts. For example, eyes have evolved independently numerous times. Consciousness has evolved in different neural configurations in primate, corvid, cetacean and cephalopod brains.⁴⁸ By way of analogy with the role that the properties of air have shaped the evolution of aerodynamics in bird, bats and insects, Oakes suggests that God acts as the mental air, drawing creatures upward to consciousness, to which we might add value-enjoyment.⁴⁹ Hints of this universal value-enjoyment can be seen, as Skutch observes, in some corvid's penchant for stealing shiny objects.⁵⁰ Likewise, many bowerbird species go to great lengths to arrange the items of their bower, such that it is hard to imagine they do not have an aesthetic sense. Charles Darwin himself noted concerning female bowerbirds that "it is impossible to doubt that she admires the beauty of her male partner."⁵¹

Beauty and ugliness

The problem of ugliness is as large as the problem of evil, and somewhat related. A theory of bottom-up emergent and top-down convergent development that is both evolutionary and theistic goes part way to dealing with ugliness. Ignorance of the role of predators in ecosystems led John

47 See for example the translation "Just as you see that a ray of light entering through a window is colored in different parts, so the divine ray shines forth in each and every creature in different ways and in different properties," in Ewert H. Cousins, *Bonaventure* (Mahwah, NJ: Paulist Press, 1978), 26. I am indebted to Denis Edwards for this reference.

48 Simon Conway Morris, *Life's Solutions: Inevitable Humans in a Lonely Universe* (Cambridge: Cambridge University Press, 2003), 246.

49 T. E. Oakes, "Complexity in Context: The Metaphysical Implications of Evolutionary Theory," in *Fitness of the Cosmos for Life: Biochemistry and Fine-Tuning*, ed. J. D. Barrow, S. Conway Morris, S. J. Freeland, and C. L. Harper (Cambridge: Cambridge University Press, 2007), 54.

50 Skutch, *Origins*, 258.

51 Original quote is from Charles Darwin, *The Descent of Man* (New York: Penguin Classics, 2004). Discussed in Pope, *The Earth is Full*, 72.

Wesley to unfairly characterise predators; “is not the outward appearance, of many of the creatures, as horrid as their dispositions.” He speaks of “savage fierceness,” “unrelenting cruelty” and refers to some creatures as “unrelenting monsters.”⁵²

There is a tension between beauty and apparent ugliness in evolution. Skutch notes that the drive to survive and reproduce has produced parasitism and predation, but also higher value, such as beauty. This means sometimes admiring their beauty while abhorring their conduct:

To close our eyes to nature’s darker side would be cowardly, dangerous, and unphilosophical; to dwell constantly upon it, depressing and alienating.⁵³

If we consider beauty in its larger evolutionary context, we can appreciate the beauty of the creative process that includes predation capable of producing both the aesthetics of a hunter’s grace and that of the fleeing prey.⁵⁴ We must however, not miss the individual for the ecosystem. Is the beauty of the whole enough to make up for what we perceive as ugliness in the part?

Our knowledge of ecosystem science allows us make an informed aesthetic evaluation based on the other aspects of the classic triad; the good and the true. Following Walton, the good stated in Genesis 1 is the proper functioning of all aspects of creation according to divine purpose.⁵⁵ Hence Austin notes that true ugliness in creation is not that wrought by natural processes or non-humans, but by us:

Many of these [environmental] systems are threatened by pollution or disruption by our affluent consumption patterns, our modern technologies, and our growing population. Sometimes the opposite of beauty is ugliness, an ugliness we can experience when we view a polluted stream with an understanding of its consequences.⁵⁶

A recent Australian example of this is coral bleaching. We know that aperiodic bleaching can occur in the Great Barrier Reef during El Niño years.

52 John Wesley, *The Great Deliverance*. Accessed 30 May 2015. <http://wesley.nnu.edu/john-wesley/the-sermons-of-john-wesley-1872-edition/sermon-60-the-general-deliverance>. For a critique, see Mick Pope, “With Heads Craning Forward: The Eschaton and the Nonhuman Creation in Romans 8,” in *Ecotheology in the Humanities: An Interdisciplinary Approach to understanding the Divine and Nature*, ed. Melissa J. Brotton (Lanham Maryland: Lexington Books, 2016), 161-78.

53 Skutch, *Origins*, xiv.

54 Rolston, *Disvalues*, 270.

55 Walton, *Lost World*, 51.

56 Austin, *Environmental Ethics*, 206.

However, recent bleaching is global and severe, and due to anthropogenic climate change and associated record level sea surface temperatures.⁵⁷ Images of bleached corals may have some aesthetic appeal, however compared with live coral and attendant other creatures, together with the knowledge of the causes, such images are truly ugly.

Aesthetic ecotheology and colonialism

As noted earlier, the sacramentality of creation is contextual and local.⁵⁸ In a post-colonial world, simply importing aesthetic ideas can do damage to local ecosystems, indigenous people, and obscure our vision. In the Australian context, reconciliation with country should also involve reconciliation with the First Peoples, learning from their aesthetic appreciation of country. Bill Gammage has catalogued some of the reactions of Europeans to what they saw upon arrival in Australia.⁵⁹ The crew of the *Endeavour* gave the east coast of Australia a fair review, with botanist Joseph Banks' draftsman observing, "The country looked very pleasant and fertile; and the trees, quite free from underwood, appeared like plantations in a gentleman's park."⁶⁰ Likewise, Charles Sturt commented that, "In many places the trees are so sparingly, and I had almost said judiciously distributed as to resemble park lands attached to a gentleman's residence in England."⁶¹

Note the parallels between these observations, those of Captain R. B. Marcy in North America, and the biophilic preference for savanna like conditions. But lest we think that this biophilic tendency is a useful basis for an ecological ethic on its own, this biophilia is biased against other landscapes. For example, when observing the Omeo plain in 1843, Henry Haygarth commented that:

A mighty belt of forest, for the most part destitute of verdure, and forming as uninviting a region as could well be found, closed it on every side for fifty miles; but there, isolated in the midst of a wilderness of desolation, lay this beautiful place, so fair, so smiling.⁶²

57 Climate Council of Australia Limited, "Climate Council Alert: Climate Change and Coral Bleaching," 2016, accessed June 15, 2016. <http://www.climatecouncil.org.au/climate-change-coral-bleaching>.

58 Lane, *Ravished by Beauty*, 54.

59 Bill Gammage, *The Biggest Estate on Earth: How Aborigines Made Australia* (Crows Nest, NSW: Allen and Unwin, 2011).

60 *Ibid.*, 5.

61 *Ibid.*, 7.

62 *Ibid.*, 8.

Observations of Tasmanian rainforests were no less flattering; “This is a horrid place [to] be in, neither Sun nor Moon to be seen no part of the sky, being completely darkened by Evergreens.”⁶³

A lack of local eye was also manifest in the introduction of European fauna into Australia. As Flannery observes:

For throughout the nineteenth century, and well into the twentieth, Australians thought instead of ways to make Australia adapt to them. In its most extreme form, this view saw people attempting to create a second Britain in Australia. ... this almost inconceivably arrogant goal is one of the saddest chapters in the history of our continent.⁶⁴

Acclimatisation societies sprung up to make settlers feel more at home by introducing a variety of species including the starling, blackbird, pheasant, red deer, carp, and rainbow trout.⁶⁵ Meanwhile, local wildlife was considered lowly, stupid and useless, and became the target of large scale butchery during the late-nineteenth and early-twentieth centuries. A failure to appreciate the aesthetic value of local wildlife led to its decimation in preference for those which appealed to traditional English aesthetic values.

Beyond biophilia to post-colonial aesthetic ecotheology

As the Anthropocene unfolds, we need a vision of the world robust enough to combat the worst in ourselves, to save it from ourselves. Beauty as disinterested delight is insufficient to aid us in this task. While beauty and its aesthetic appreciation are products of evolution by natural selection, materialism and reductionism renders them useless to ecology because they become “nothing but” concepts. Aesthetic ecotheology builds on evolutionary insights by understanding creation sacramentally and creation both reflecting the divine beauty (Calvin’s mirror) and being fully appreciated as beautiful as created things (Bonaventure’s stained glass). Evolution is the proximate cause of beauty, but its final cause lies in God.

The parable of the Good Samaritan (Luke 10:25-37) provides us with a parallel between ethics and aesthetics. The parable is told in response to a question about who is our neighbour that we should care for them? Jesus argues that our concept of neighbour should move from a narrow focus

⁶³ *Ibid.*, 12.

⁶⁴ Tim Flannery, *The Future Eaters: An Ecological History of the Australasian Lands and People* (Reed New Holland, 1994), 355.

⁶⁵ Tim Low, *Feral Future: The Untold Story of Australia’s Exotic Invaders* (Penguin Books, 1999), 38.

on tribe, nation or faith to include all people. Some scholars extend this to include non-humans.⁶⁶ Evolutionary altruism suggests that we are more likely to care for our own kin than non-kin.⁶⁷ Hence the parable moves us beyond mere biology. Likewise, if Wilson is correct in suggesting biophilia is also largely biased to our African savanna origins, biophilia needs to transcend its evolutionary boundaries. Our sense of aesthetics must therefore be influenced not just from below via evolution, but from above by God. As such, much work still needs to be done to understand the evolutionary origin of beauty and how this can be understood in a theological framework. Further work needs to be done in several areas; including, the relationship between divine action and the development of beauty, an moral understanding of ugliness, and the connection between the cultural mandate of Genesis 1 and maintaining or improving natural beauty.

At a contextual level, an Australian aesthetic ecotheology must involve transcending our own biases of what is beautiful, and learn to see the beauty in the Australian landscape, its creatures, and learn from the First Peoples who have been its custodians. Ross Langmead defined ecotheology as reconciliation at all levels.⁶⁸ First People's experience of some 60,000 years of occupancy can provide us with a fuller aesthetic value of country; not simply its visual beauty, but its own functional, moral and spiritual value. Indigenous Christian theology, such as that of the Rainbow Spirit Elders, allows us to see and hear God at work in this place.⁶⁹ It remains the task of an Australian aesthetic ecotheology to pursue reconciliation with land and people. Such a pursuit is both scientific and theological. From a scientific perspective, this will involve a greater appreciation and understanding of the unique flora, fauna and landscape of the Australian continent in both local and global earth system contexts. From a theological perspective, an Australian aesthetic ecotheology will need to be shaped by Indigenous theological insights, together with traditional tools of biblical and systematic theology.

Dr Mick Pope (polymath@optusnet.com.au) has studied both meteorology and theology and is the coordinator of Ethos Environment, a think tank of Ethos: EA Centre of Christianity and Society.

66 Niels Henrik Gregerson, "Christology," in *Systematic Theology and Climate Change: Ecumenical Perspectives*, ed. Michael S. Northcott and Peter M. Scott (London: Routledge, 2014), 46.

67 See for example, Kevin R. Foster, Tom Wenseleers, and Francis L. W. Ratnieks, "Kin Selection is the Key to Altruism," *Trends in Ecology and Evolution* 21 (2006): 57-60.

68 Ross Langmead, "Ecojustice Principles: Challenges for the Evangelical Perspective," *Ecotheology*, 5-6 (1998-99): 164.

69 Rainbow Spirit Elders, *Rainbow Spirit Theology: Towards an Australian Theology Second Edition* (Hindmarsh SA: ATF Press, 2007).

References

- Alexander, Katherine B. *Saving Beauty: A Theological Aesthetics of Nature*. Minneapolis: Fortress Press, 2014.
- Austin, Richard Cartright. "Beauty: A Foundation for Environmental Ethics," *Environmental Ethics* 7 (1985): 197-208.
- Chapman, Graham, John Cleese, André Jacquemin, *et al.* "All Things Dull and Ugly." In *Monty Python's Contractual Obligation Album*. New York City, NY: Charisma, 1980.
- Cheshire, Stephen. "Collecting Butterflies," *British Butterflies*. Accessed June 20, 2016. <http://www.britishbutterflies.co.uk/collecting.asp>.
- Climate Council of Australia Ltd, "Climate Council Alert: Climate Change and Coral Bleaching," 2016. <http://www.climatecouncil.org.au/climate-change-coral-bleaching>.
- Colbert, Elizabeth. *The Sixth Extinction: An Unnatural History*. London: Bloomsbury, 2014.
- Cousins, Ewert H. *Bonaventure*. Mahwah, NJ: Paulist Press, 1978.
- Darwin, Charles. *The Descent of Man*. New York: Penguin Classics: 2004.
- Flannery, Tim. *The Future Eaters: An Ecological History of the Australasian Lands and People*. Reed New Holland, 1994.
- Foster, Kevin R., Tom Wenseleers, and Francis L. W. Ratnieks. "Kin Selection is the Key to Altruism." *Trends in Ecology and Evolution* 21 (2006): 57-60.
- Gammage, Bill. *The Biggest Estate on Earth: How Aborigines Made Australia*. Crows Nest, NSW: Allen and Unwin, 2011.
- Gregerson, Niels Henrik. "Christology." In *Systematic Theology and Climate Change: Ecumenical Perspectives*, edited by Michael S. Northcott and Peter M. Scott. London: Routledge, 2014.
- Kauffman, Stuart, Robert K. Logan, Robert Este, Randy Goebel, David Hobill, and Ilya Shmulevich. "Propagating Organization: An Enquiry." *Biology & Philosophy* 23 (2008): 27-45.
- Kauffman, Stuart. *Reinventing the Sacred: A New View of Science, Reason and Religion*. New York: Basic Books, 2010.
- Lane, Belden. *Ravished by Beauty: The Surprising Legacy of Reformed Spirituality*. Oxford: Oxford University Press, 2011.
- Langmead, Ross. "Ecojustice Principles: Challenges for the Evangelical Perspective." *Ecotheology*, 5-6 (1998-99): 162-72.
- Lewis, Simon L., and Mark A. Maslin, "Defining the Anthropocene." *Nature* 519 (2015): 171-80.
- Low, Tim. *Feral Future: The Untold Story of Australia's Exotic Invaders*. Penguin Books, 1999.
- Mora, Camilo, Derek P. Tittensor, Sina Adl, Alastair G. B. Simpson, and Boris Worm. "How many Species are there on Earth and in the Ocean?" *PLOS Biology* 9 (2011): 1-8.
- Morris, Simon Conway. *Life's Solutions: Inevitable Humans in a Lonely Universe*. Cambridge: Cambridge University Press, 2003.
- Murphy, Nancey, and George F. R. Ellis. *On the Moral Nature of the Universe*. Minneapolis, MN: Fortress Press, 1996.
- Oakes, T. E. "Complexity in Context: The Metaphysical Implications of Evolutionary Theory." in *Fitness of the Cosmos for Life: Biochemistry and Fine-Tuning*, edited by J. D. Barrow, S. Conway Morris, S. J. Freeland, and C. L. Harper. Cambridge: Cambridge University Press, 2007.
- Pinnock, Clark H. *Flame of Love: A Theology of the Holy Spirit*. Downers Grove, IL: IVP, 1996.
- Pope, Mick. "S141 Christ and the Camera Lens: A Theology of Wildlife Documentation." *Zadok Paper Series*, Spring 2005.
- . "The Earth is Full of your Creatures: A Theology of Wilderness," *Anglican EcoCare Journal of Ecotheology* 1 (2014): 65-78.
- . "With Heads Craning Forward: The Eschaton and the Nonhuman Creation in Romans

- 8," in *Ecotheology in the Humanities: An Interdisciplinary Approach to understanding the Divine and Nature*, edited by Melissa J. Brotton. Lanham, MD: Lexington Books, 2016.
- Rainbow Spirit Elders. *Rainbow Spirit Theology: Towards an Australian Theology Second Edition*. Hindmarsh SA: ATF Press, 2007.
- Rolston, Holmes III. "Disvalues in Nature." *The Monist: An International Quarterly Journal of General Philosophical Enquiry* 75 (1992): 250-78.
- Skutch, Alexander. *The Origins of Nature's Beauty*. Austin, TX: University of Texas Press, 1992.
- Steffen, Will, Katherine Richardson, Johan Rockström, Sarah E. Cornell, Ingo Fetzer, Elena M. Bennett, Reinette Biggs, Stephen R. Carpenter, Wim de Vries, Cynthia A. de Wit, Carl Folke, Dieter Gerten, Jens Heinke, Georgina M. Mace, Linn M. Persson, Veerabhadran Ramanathan, Belinda Reyers, and Sverker Sörlin. "Planetary Boundaries: Guiding Human Development on a Changing Planet." *Science* 347 (2015): 1-17.
- United Nations, Department of Economic and Social Affairs, Population Division (2015). *World Urbanization Prospects: The 2014 Revision* (ST/ESA/SER.A/366).
- Wallace, Alfred Russell. *The Malay Archipelago*. Singapore: Periplus, 2000.
- Walton, John. *The Lost World of Genesis One: Ancient Cosmology and the Origins Debate*. (Leicester: IVP, 2009).
- . *The Lost World of Adam and Eve: Genesis 2-3 and the Origins Debate*. Downers Grove, IL: IVP, 2015.
- . *The Great Deliverance*. <http://wesley.nnu.edu/john-wesley/the-sermons-of-john-wesley-1872-edition/sermon-60-the-general-deliverance>.
- Wilson, E. O. *Biophilia*. Cambridge, MA: Harvard University Press, 1986.

The hidden things of God in the ocean

Robert D. Sluka

The ocean is experiencing tremendous threats from human activity. What is our response to these threats? We must root marine research and conservation in theology in order to live integrated lives and base our hope ultimately in God. This paper seeks to look at marine research and conservation through the theological lens of Matthew 5 and Revelation 5 and then give a short case study of how *A Rocha*, a Christian conservation organisation, is living this out by revealing and healing the hidden things of God in the ocean. Through research we are taking the “bowl” off the lamp of tropical rockpool marine biodiversity and through conservation projects assisting the healing of these habitats so that they may praise God along with the throng before the throne. Science and theology, driving our work, provides an integrated and hopeful approach which brings glory to God.

Ocean—the hidden things of God

Walking down a typical beach, it would be easy to surmise that there is little living there. If it is a calm day, you might be looking out on the sea which resembles more a sheet of glass than an aquarium. Yet below your feet, crawling in and amongst the sand grains, swimming below the surface of the sea, and fixed to rocks just out of sight live an amazing array of marine creatures—all usually hidden from sight. For most of human history, the incredible biodiversity of the sea has remained hidden from sight or only seen on the end of a fisherman’s line.

Yet there are tantalising glimpses provided for us by our Creator.¹ Genesis 1 reminds us that on the fourth day the sun and moon were established to

1 Note that by using the term Creator I am not assuming a particular origins narrative.

mark out time.² While not mentioned specifically, this obviously includes the tidal cycle. Due to the force of gravity exerted on the ocean by the sun and moon (but especially the moon due to its proximity) the oceans rise and fall in regular and predictable patterns. In some places this can cause very large fluctuations in sea level. At low tide, when water is pulled to the other side of the planet, we begin to see the hidden things of God in the ocean.³

“There is the sea, vast and spacious, teeming with creatures beyond number—living things both large and small” (Psalm 104:25 NIVUK). It is easy to focus on the “large” aspect of this verse. Whales, dolphins and sharks fill us with awe at their size and power. Yet hidden from site are innumerable “small” creatures which are equally amazing; their intrinsic value not determined relative to us.⁴ They have value because they are God’s creation. In an exposition of Job 38:39–39:30, Richard Bauckham states that, among other concepts, this passage expresses “God’s sheer joy in his creatures, their variety and idiosyncracies . . .” and God “ . . . rejoices in the unique value of each.”⁵

The ocean is experiencing tremendous threats from human activity, particularly climate change, pollution, and overfishing.⁶ What is our response to these threats? Many, both secular and Christian, working in marine conservation remain hopeful.⁷ Yet how do we root marine research and conservation in theology in order to live integrated lives and base our hope ultimately in God? This paper seeks to look at marine research and conservation through the theological lens of several biblical passages and then give a short case study of one attempt at living this out in an area experiencing all the threats that currently face the ocean. While focusing specifically on the ocean as this

- 2 For a fuller discussion of Genesis 1 from a marine point of view, see Robert D. Sluka, *Hope for the ocean: marine conservation, poverty alleviation and blessing the nations* (Cambridge: Grove Ethics Series E165, Grove Books, 2012).
- 3 In places like the Mediterranean where there is essentially no tidal movement of water, this has resulted in a very poor realisation of the extent of marine life among visitors to the coast (pers. comm. Olivier Dufourneaud of Institut Oceanographique, Monaco).
- 4 A number of authors focus on the concept of the intrinsic value of creation including F. Van Dyke *et al.*, *Redeeming Creation: The Biblical Basis for Environmental Stewardship* (Downers Grove, IL: InterVarsity Press, 1996); D. Bookless, *Planetwise* (Leicester: InterVarsity Press, 2008); S. Bouma-Prediger, *For the Beauty of the Earth, Second Edition* (Grand Rapids: Baker Academic, 2010).
- 5 Richard Bauckham, *Bible and Ecology: Rediscovering the Community of Creation* (London: Darton, Longman and Todd, 2010), 51.
- 6 B. S. Halpern *et al.*, “A global map of human impact on marine ecosystems,” *Science* 319 (2008): 948–52.
- 7 Meric Srokosz and Robert D. Sluka. “Creation Care of the other 71%.” In *Creation Care and the Gospel: Reconsidering the Mission of the Church*, ed. Colin Bell and Robert S. White (Massachusetts: Hendrickson Publishers Marketing, 2016), 214–36.

is the author's background and there is a dearth of theological writing with a marine emphasis, the principles could be applied to any area of research and conservation.

Marine research—revealing the hidden things of God

Psalm 111 has been called the research scientists' psalm.⁸ The second verse reads "Great are the works of the Lord; they are studied by all who delight in them" (Psalm 111:2 NIVUK). What is the role of marine research? Certainly there are many roles, but I want to focus on that of revealing the hidden things of God. When we study the works of the Lord, we are able to make them known to those who might not otherwise have been able to see. We as Christian marine researchers utilise God's book of Words (the Bible) to make sense of and understand God's book of works (the hidden things of God in the ocean—among other creative works). This doesn't, of course, mean that the Bible will tell us how to make sense of whether competition or predation is structuring a coral reef community. However, what do these things mean ultimately? How can we see signs of the Creator in the creation? This is a different kind of natural theology: as Alister McGrath so clearly points out; Paley and those arguments are long gone.⁹ But that does not mean that we cannot show the resonance of Biblical motifs in the work of creation and to use science to inspire and turn our hearts towards the Creator.

You are the light of the world. A town built on a hill cannot be hidden. Neither do people light a lamp and put it under a bowl. Instead they put it on its stand, and it gives light to everyone in the house. In the same way, let your light shine before others, that they may see your good deeds and glorify your Father in heaven.¹⁰

The context of these verses is the Sermon on the Mount. A crowd gathers and Jesus delivers the compelling beatitudes. We can use these verses as a guide to think about the ultimate purpose of marine research, really any research. The key to this is in verse 16 and of course, other passages that exhort us to work as unto the Lord (*e.g.*, Colossians 3:23). Ultimately, our purpose in research is to glorify our Father in heaven.

8 R. J. Berry, "The Research Scientist's Psalm," *Science and Christian Belief* 20 (2008): 147-61.

9 Alistair McGrath, *Darwinism and the Divine: Evolutionary Thought and Natural Theology* (Oxford: Blackwell-Wiley, 2011).

10 Matthew 5:14-16 NIVUK.

Marine research in many ways is like lighting a lamp. There is darkness; the unknown. We use the research process to bring light to a habitat, species or process. It is not stretching these verses too far to say that researchers are the light of the world, illuminating the works of God in creation, this being a good deed so that the Father is glorified. For Christian researchers, then, it is very important to make this connection. Whilst there is value in “pure” research that we do for God’s glory alone—perhaps only coming to light by publishing in specialised research journals—there is a point where our research must not be a town built so that it can’t be seen. It must not be a lamp hid under a bowl. So how do we as researchers make the link between our research and God’s glory?

We first have to settle this for ourselves. Do we see how our research glorifies God? Can we articulate that even internally? Are we ready to give an answer to those who ask us to give the reason for the hope that we have? Certainly too, there is a role for writing and teaching other Christians. Perhaps you can give a talk at church reflecting God’s beauty and wonder seen through your research—putting the lamp out for others to see what you have already internalised. Building that town on a hill. There are many other possibilities for glorifying our Father in heaven through the light that our research shines on Him. God’s book of works, interpreted through God’s book of Words, giving glory to the Father.

It can be difficult to put our lamp out for all to see without shining it so brightly in someone’s eye that they are blinded or even driven away from the light into the darkness. But this we must do, sensitively, gently, in love, making known the mystery of Christ hidden from times past (*cf.* Ephesians 1:9)—brought to light through our research and in our lives.

Marine research then is ultimately, metaphorically speaking, bringing to light the hidden things of God in the ocean. Setting them out as a town on a hill or a lamp giving light to a dark room—publishing, speaking, educating, and sharing. Ultimately, we are revealing the hidden things of God, pointing to the Father, being careful to glorify Him.

Marine conservation—healing the hidden things of God

The ocean is not as it was nor as it will be. Humans are playing a significant role in changing the very nature of the ocean and its inhabitants. These impacts have solutions, many of which resonate with biblical principles such as giving the sea a sabbath.¹¹ Suffice it to say that we can take action, and while we need

11 Susan Powers Bratton, “Sea Sabbaths for sea stewards,” in *Environmental Stewardship: Critical*

to exercise proper humility in this endeavour,¹² marine conservation science as a discipline grows each day.

What is the ultimate goal, though, of marine conservation? When we think of ultimate things in the Christian faith, we often turn to the final book of the Bible, Revelation. However, is the final fate of the sea to “be no more” as Revelation 21:1 states? This passage has been discussed extensively by Jonathan Moo¹³ who clearly indicates that this passage and many other references in the Scriptures relate to the symbolic nature the sea held for ancient people as a symbol of chaos. This passage is not to be taken literally—there will be marine life in heaven and therefore presumably sea water as Revelation 5:9-13 so clearly indicates. I believe that this passage is a key to understanding the current role of marine conservation as healing, bringing the marine portions of our world into the new creation where they will be a part of the throng before the throne worshipping the Lamb.

And they sang a new song, saying:
 “You are worthy to take the scroll
 and to open its seals,
 because you were slain,
 and with your blood you purchased for God
 persons from every tribe and language and people and nation.
 You have made them to be a kingdom and priests to serve our God,
 and they will reign on the earth.”
 Then I looked and heard the voice of many angels, numbering
 thousands upon thousands, and ten thousand times ten thousand.
 They encircled the throne and the living creatures and the elders. In a
 loud voice they were saying:
 “Worthy is the Lamb, who was slain,
 to receive power and wealth and wisdom and strength
 and honour and glory and praise!”
 Then I heard every creature in heaven and on earth and under the
 earth and on the sea, and all that is in them, saying:
 “To him who sits on the throne and to the Lamb
 be praise and honour and glory and power,
 for ever and ever!” (Revelation 5:9-13 NIVUK)

Perspectives—Past and Present, ed. R. J. Berry (London: T&T Clark, 2006), 208-12; Tim Gorringer, *Harvest: Food, Farming and the Churches* (London: SPCK, 2006).

- 12 Susan Powers Bratton, “The precautionary principle and the book of Proverbs: Toward an ethic of ecological prudence in ocean management,” *Worldviews* 7 (2003): 252-73. And Meric Srokosz, “Humility: A neglected scientific virtue?” *Science and Christian Belief* 25 (2013): 101-12.
- 13 Jonathan Moo, “The Sea that is no more: Rev 21:1 and the function of sea imagery in the Apocalypse of John,” *Novum Testamentum* 51 (2009): 148-67.

There is much that can be gleaned from this passage, but I want to focus on the praise of all creation before the throne of God. This passage comes in the midst of a difficult reading regarding judgement, coming pain and misery. But it gives us a glimpse of the ultimate goal and end of all that is. Many have focused on verse 9, all nations, tongues, tribes of humans before the throne. Giving impetus, and rightly so, to a desire to fulfil Jesus' command to go to the ends of the earth. But the passage goes on and gives an even wider and more glorious view of the throne room: all creation before the throne, praising and worshipping God.¹⁴

Too often we have a truncated version of history that starts at the fall and ends at the cross. In the larger view of the world, we must include in that meta-history the beginning and the end; which is creation and new creation. When we begin with creation and take into account the magnitude of the Fall, which broke all relationships include those between humanity and non-human creation and between non-human creation and God, we have a grander, non-anthropocentric view of history. The Fall much more deeply affects the world around us than simply breaking humanity's relationship with its Creator. The corollary to this is that the cross is so much more vastly wondrous and so much more deeply universe-changing than simply offering individuals the opportunity to get right with their Creator.

If all was broken at the Fall, then all is ultimately set right through the cross. Colossians 1:15-20 makes that clear. The cross then sets the stage for and ushers in the Kingdom of God: new creation.¹⁵ We see in the Revelation passage above that this ultimately is about praise of the Lamb. All creation worshipping before the throne.

The ultimate goal, then of marine conservation, is the healing of the ocean so that it praises God as new creation. How can the ocean praise God? One way of looking at it is that creation praises God when it functions as it was created to function. One place we see this spelled out in Scripture is in Genesis 1 where the sea is blessed and commanded to be fruitful and creatures teem, swarm, and are in abundance. This highlights the importance of studying the ocean in places where impacts are minimal and in setting up protected areas where the ocean can begin to function as it was intended to in order to understand what ideas like teeming really mean.

14 The theme of the worship of all creation is dealt with extensively by Richard Bauckham, *Living with other creatures: Green exegesis and theology* (Waco, Texas: Baylor University Press, 2011), 163-84.

15 A recent book focussing on this is Jonathan Moo and Robert White, *Hope in an Age of Despair: The gospel and the future of life on earth* (Nottingham: InterVarsity Press, 2013).

A Rocha Kenya—revealing and healing the hidden things of God in the ocean

Marine researchers and conservationists at A Rocha Kenya's Field Study Centre, are trying to apply these theological lessons by utilising science to make discoveries and then revealing them to our neighbours far and wide in such a way that we hope God is glorified.¹⁶ Part of our marine biodiversity research involves examining and describing species that live in the many habitats found in Watamu Marine National Park such as coral reefs, seagrass beds, and sandy beaches. In 2013 we began studying the rockpools that are revealed at low tide, but remain hidden from sight at high tide. In the course of our research we found red algae, green algae, brown algae, sponges, coral, flatworms, crustaceans, marine worms, sea stars, brittle stars, sea cucumbers, sea urchins, sea squirts, and fish. Each a major taxonomic group of marine organisms—all living in tiny rockpools hidden from sight. The hidden things of God in the ocean, revealed to those that search them out.

The intertidal zone is well studied in temperate areas, but much less so in the tropics. Our recent investigations have revealed how important these habitats are for many juvenile fish species which migrate offshore and enter the artisanal fishery.¹⁷ Additionally, a rare coral was found in abundance that is not seen in the rest of studied areas in East Africa and we are working towards its conservation. These rockpools serve as places of education for the local community especially schools, revealing these hidden things to those who might not have the chance to understand.

We have also made a number of observations of IUCN Near Threatened or Vulnerable elasmobranchs—sharks, rays and guitarfish¹⁸. These species are heavily fished and the marine park serves as a nursery ground for these species where they can grow and thrive. Working with local communities to reveal to them the importance of the park in these species' lifecycles is a way of moving towards dealing with overfishing, including exploring cultural and spiritual values which may help or hinder conservation.¹⁹

16 For more details see <http://kenya.arocha.org/work/scientific-research/marine>.

17 Victoria Sindorf *et al.*, "Rocky intertidal fish assemblage in the Watamu Marine National Park, Western Indian Ocean," *Environmental Biology of Fishes* 98 (2015): 1777-85.

18 The International Union for the Conservation of Nature is an international body of conservation organisations that monitors the status of species and produces a Redlist showing the relative threats and status of species. A Rocha is the only Christian organisation that is a member of this body.

19 Robert D. Sluka and Paul Simonin, "Marine Capture Fisheries—A call to action in response to limits, unintended consequences, and ethics," *Perspectives on Science and Christian Faith* 66 (2014): 203-12.

We seek then, to uncover these hidden things of God through our research and then become a light on a hill, revealing these hidden things in a way that brings God's kingdom on earth (including the ocean) as it is in heaven. In order to bring healing to the ocean itself and those who use it, we have begun a programme focusing on the activities of young men, locally called "beach boys," who act as unofficial guides to tourists, purporting to show them the riches of these rockpools. Our research suggests that many of their activities are damaging to ocean life and the information they give to tourists is less than accurate. We are seeking to heal (conserve) these rockpools by providing accurate information and guiding material that can be used by "beach boys" as well as investing in their lives so that they can see the love of Christ through what He has made and in those of serving them.

Conclusion

Marine research and conservation go hand in hand. We must continue to understand how the ocean works, its biodiversity, and what it means for the sea to teem with abundance. Most alive today have never seen it as it once was and can only imagine how things were. The role of the marine researcher is to bring to light these hidden things and work with those in marine conservation to protect and bring to fruition new creation in the ocean. Ultimately, the goals for the Christian involved in this endeavour is to glorify the Father and work towards all creation functioning as it will in order that God is praised.

Dr Robert D. Sluka (Bob.sluka@arocha.org) is the Lead Scientist of A Rocha's International Marine and Coastal Conservation Programme. Having started diving at 13 and completing degrees in marine biology from the University of Miami, Robert has been working in the field of marine conservation for twenty years. His focus has been on marine protected areas and the ecology of coral reef fish, as well as coral reef fisheries. Robert is working towards a life that integrates his beliefs and love of the ocean in a way that brings blessing to people, nations, and the planet. He is based near Oxford, UK.

References

- Bauckham, Richard. *Bible and Ecology: Rediscovering the Community of Creation*. London: Darton, Longman and Todd, 2010.
- . *Living with other creatures: Green exegesis and theology*. Waco, TX: Baylor University Press, 2011.
- Berry, R. J. "The Research Scientist's Psalm." *Science and Christian Belief* 20 (2008): 147-61.
- Bookless, Dave. *Planetwise*. Leicester: InterVarsity Press, 2008.
- Bouma-Prediger, S. *For the Beauty of the Earth, Second Edition*. Grand Rapids: Baker Academic, 2010.

- Bratton, Susan Powers. "Sea Sabbaths for sea stewards." In *Environmental Stewardship: Critical Perspectives—Past and Present*, edited by R. J. Berry, 208-12. London: T&T Clark, 2006.
- . "The precautionary principle and the book of Proverbs: Toward an ethic of ecological prudence in ocean management." *Worldviews* 7 (2003): 252-73.
- Gorringe, Tim. *Harvest: Food, Farming and the Churches*. London: SPCK, 2006.
- Halpern, B. S., S. Walbridge, K. A. Selkoe, C. V. Kappel, F. Micheli, C. D'Agrosa, J. F. Bruno, K. S. Casey, C. Ebert, H. E. Fox, R. Fujita, D. Heinemann, H. S. Lenihan, E. M. P. Madin, M. T. Perry, E. R. Selig, M. Spalding, R. Steneck, and R. Watson. "A global map of human impact on marine ecosystems." *Science* 319 (2008): 948-52.
- McGrath, Alistair. *Darwinism and the Divine: Evolutionary Thought and Natural Theology*. Oxford: Blackwell-Wiley, 2011.
- Moo, Jonathan. "The Sea that is no more: Rev 21:1 and the function of sea imagery in the Apocalypse of John." *Novum Testamentum* 51 (2009): 148-67.
- Moo, Jonathan, and Robert White. *Hope in an Age of Despair: The gospel and the future of life on earth*. Nottingham: InterVarsity Press, 2013.
- Sindorf, Victoria, Benjamin D. Cowburn, and Robert D. Sluka. "Rocky intertidal fish assemblage in the Watamu Marine National Park, Western Indian Ocean." *Environmental Biology of Fishes* 98 (2015): 1777-85.
- Sluka, Robert D., Hope for the ocean: marine conservation, poverty alleviation and blessing the nations. Cambridge: Grove Ethics Series E165, Grove Books, 2012.
- Sluka, Robert D., and Paul Simonin. "Marine Capture Fisheries—A call to action in response to limits, unintended consequences, and ethics." *Perspectives on Science and Christian Faith* 66 (2014): 203-12.
- Srokosz, Meric. "Humility: A neglected scientific virtue?" *Science and Christian Belief* 25 (2013): 101-12.
- Srokosz, Meric, and Robert D. Sluka. "Creation Care of the other 71%." In *Creation Care and the Gospel: Reconsidering the Mission of the Church*, edited by Colin Bell and Robert S. Whit, 214-36. Massachusetts: Hendrickson Publishers Marketing, 2016.
- Van Dyke, F., D. C. Mahan, J. K. Sheldon, and R. H. Brand. *Redeeming Creation: The Biblical Basis for Environmental Stewardship*. Downers Grove, IL: InterVarsity Press, 1996.

Let all the islands sing

Ecotheology informed by Melanesia

Aram Oroi, Nigel Kelaepa, and Keith Joseph

Pacific Island culture has less concern for time and for reductionism than modern Western culture. This results in different theological approaches and a different concern for the environment which stresses the oneness of humanity with God's creation. This article will examine these presuppositions and then based on that argue for a narrative approach to ecotheology including a critique of the dominant reductionist paradigm. It will be put that a Melanesian approach to ecotheology offers a new way of viewing the problems we all face and one that enables new solutions to be seen. This paper will be deeply informed by the practical experiences of the authors in dealing with the effects of climate change and deforestation in the Solomon Islands.

Introduction

Traditional Christian theological discourse is dominated by the methodology of the Latin and Greek churches. These of course in turn owe much to the methodology of Greek and Latin philosophers. Many of the important early apologists such as Justin Martyr and Augustine of Hippo were trained in philosophy, and Augustine in particular is counted as a major early Neoplatonist philosopher. Later writers such as Thomas Aquinas were also accomplished philosophers, and the scholastic method of detailed definition, analysis, critique and countercritique came to define both western theology and philosophy. Accordingly, in areas of theology such as ethics and ecotheology, we have the dominance of western methods of discourse which tend to be analytical.

But the Christian church has now moved well beyond its Latin and Greek roots. Christianity is the dominant religion of Oceania, and is integrated

and integral in the culture and identity of the peoples of the islands of the Pacific Ocean. Distinctions accepted in the west—such as division between spiritual and material, between church and state—have no place in Oceanic thinking.¹ Whilst there are three distinct groups in the Pacific Islands—Micronesia, Melanesia and Polynesia—they have long been linked by trade and migration, and it is possible to talk of an Oceanic culture and an Oceanic Christianity. Oceanic peoples are very conscious of their environment, and the way in which they are part of their environment. Pre-Christian Oceanic religion and Oceanic Christianity are very aware of this: recent attempts to construct Oceanic Theology, such as Winston Halapua's *Moana* theology² inevitably must reflect on the environment in which Oceanic peoples live. Clearly this awareness of the way in which humans are part of the environment rather than separate from it is important for ecotheology. An important part of this coherent spirituality is the idea of *mana* which is usually translated in the West as “spiritual power”: *mana* weaves through the narratives of the Oceanic peoples, connecting them to each other and God. *Kastom* (powerful traditional beliefs and world views) also forms part of the coherent spirituality of Melanesians, and is also to be found more widely in various names throughout Oceania.

Another note of difference is the way in which Oceanic peoples approach knowledge. In the West we have long been influenced by reductionism: that is, the attempt to discern meaning by analysis and reduction of complex phenomena to their simplest components. This can be seen in analytic modes of philosophical and scientific discourse, and is also seen in theology. For example, one approach to scripture is a verse by verse and even word by word analysis of the text. This can even be seen in ecotheology in the quest for proof texts which are concerned with protection of the environment.³ Now this is quite important: analytical approaches are an essential tool in theology. But not the only tool. In this article we follow an alternative approach, based on narration or story-telling. This is hardly a new thing; much of the Bible is story-telling, including Jesus' constant use of parables. But story-telling more than ever is needed to move people and give a fuller sense of the practical theology problems facing us. Oceanic narratives point a way towards recasting the debate in ecotheology.

- 1 Keith Joseph & Charles Brown Beu, “Church and State in Solomon Islands,” *State, Society and Governance in Melanesia*, Discussion Paper 2008/11.
- 2 Winston Halapua, *Waves of God's Embrace: Sacred Perspectives from the Ocean* (Norwich: Canterbury Press, 2013).
- 3 For example, Daniel L. Brunner, Jennifer L. Butler, and A. J. Swoboda, *Introducing Evangelical Ecotheology* (Grand Rapids: Baker Academic, 2014), 25-34.

This task is made urgent by the challenge of climate change. The peoples of the islands of the Pacific are very aware that they are the first to pay the cost for the environmental destruction wrought by the rest of the world. This means that they are now attempting in their narratives to understand the reason for this. It is important that the rest of the world also understands this narrative approach focussing on relationships. Climate change, for example, points out the centrality of relationships between humans collectively and God's creation and the need for holistic thinking about these relationships. Western thinking, usually based on the centrality of the individual and an ethic based on individual autonomy simply cannot meet the challenge of climate change and other challenges which are part of the concern of ecotheology. In this article we hope to show that an Oceanic approach offers an approach to ecotheology that is likely to be more fruitful and hopeful than a traditional western approach alone.

As part of this narrative, it is important to know where the narrators are coming from: the narrative cannot be understood apart from the story teller. All are Anglican Priests, ordained in the Anglican Church of Melanesia. Nigel Kelaepa is a Polynesian, from the atoll of Ontong Java, whose people are now being exiled from their island due to rising sea levels. Aram Oroi is from the island of Makira, who has seen the damage done to his home village through

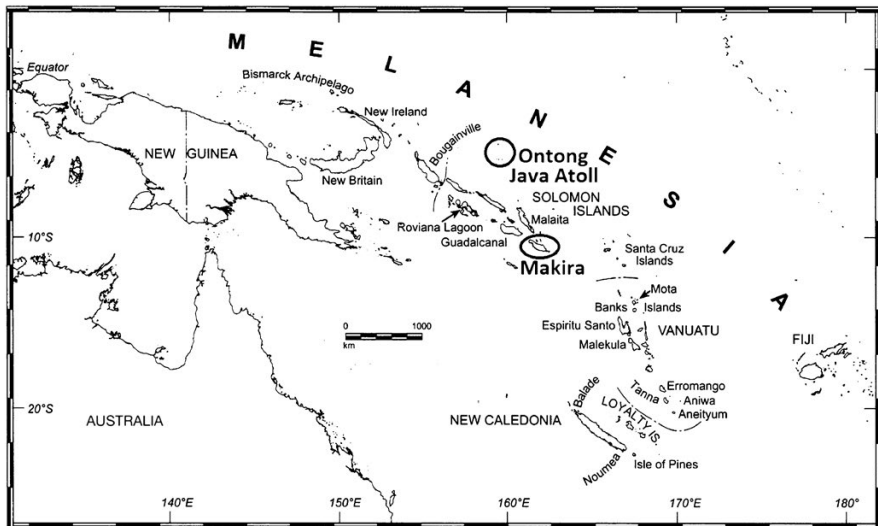


Figure 1: Melanesia showing Ontong Java Atoll and Makira. Original map from Ian C. Campbell, *Worlds Apart: A History of the Pacific Islands* (Christchurch: Canterbury University Press, 2003), 6.

destructive logging. Keith Joseph is an Australian philosopher who has lived and worked in Melanesia, and been adopted into the island of Guadalcanal. Our stories have been brought together by islands and oceans of the Solomon Islands, our canoes crossing and brought together as cloth is brought together from many disparate strands on the women's loom. The individual strand by itself cannot be understood unless it is part of the cloth, and we urge you to follow the strands as they form part of the cloth, and avoid the temptation to pull apart each individual strand. Our story only makes sense together: such is the way of the ocean people. We now tell our stories, in our own way.

Aram Oroi—telling stories in Melanesia

I share in this story from Arosi, Makira Island. Doing theology and sharing knowledge in Melanesia is about stories and storytelling. This leads us to ask: what is a Melanesian perception of a story? Where do we tell such a story? What is the “stuff” of important Melanesian stories and the storytelling that is involved?

What is a story?

Bagele Chilisa, an African woman writer, has this to say about stories:

Stories are the tools of data collection, analysis, and interpretation that give another side of the story to deficit theorising about the Other and allow the Other, formerly colonised and historically oppressed, to frame and tell their past and present life experiences from their perspectives.⁴

Chilisa has a point that agrees with the vital nature of stories in Melanesia and how stories affect our approach to Melanesian ecotheology. Stories take up a central place and space in the lives of Melanesians because the culture is predominantly oral in nature. Besides, important cultural knowledge and information is passed on by word of mouth. That is to say, a significant aspect of why stories are shared in the first place is that stories enable relationships that uphold a Melanesian community as further discussed below.

In terms of Melanesian theology, stories that people share with one another about God and what God is doing to individuals and communities are very much a part of what people experience in their lives as Christians, even if they do this “theologising” in their bush huts, cook houses, market places, the chapel, family get-togethers in homes, and communal gatherings. Moreover,

4 Bagele Chilisa, *Indigenous Research Methodologies* (Los Angeles: Sage Publications, 2012), 138.

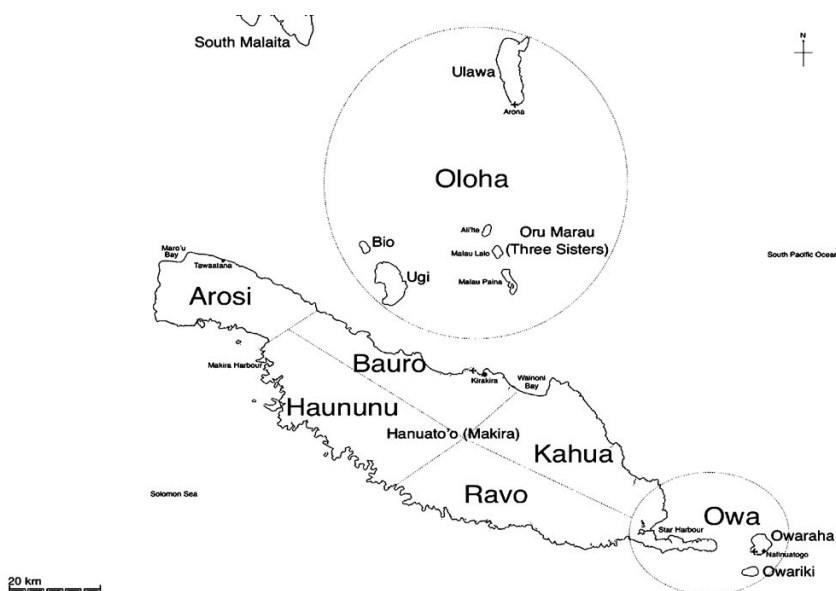


Figure 2: The Arosi District on the island of Makira.

stories are shared because Melanesians witness first-hand the *mana* (spiritual power) of a God who acts to heal the sick, direct cyclones away from villages, and supply rain in answer to prayers offered in faith to God the Father through Jesus Christ, and sanctified by the Holy Spirit of God. For that matter, the importance of Melanesian stories and ways of telling a story are all taken seriously in this paper because stories are vital to the general thrust of our discussion and articulation.

Any act of telling a story involves a teller, a listener (or reader), and a story. In Arosi on the north-east coast of Makira Island, the word for a story is *maamaani* (story/storytelling). This word embodies these three important components—a teller, a listener, and a story. All of these three components are combined into one word of depth, richness, and dimension as explained below.

The word *maamaani* (story/storytelling) takes its root meaning from the human part of the body called the *maa* (eye/eyes). This distinction is important because when a storyteller tells a story, he or she shares the story by giving a perspective or a view as seen from the teller's *maa* (eye/eyes). The idea of sharing a story comes from the word *maamaani* (story/storytelling) itself when it is written as *maa-maa-ni* (eye-eye-this), which translates into a phrase that reads, “to view my side of the story as seen from my eye/eyes.” After all, the teller of any story is giving a perspective from his or her eye/eyes.

Without that perspective that is shared from the perspective of the storyteller, there is no point in telling any story in the first place.

Furthermore, the listener listens to the story from a listener's perspective, while at the same time he or she is also obliged to view the story from the perspective of the teller. That is to say, the listener is required to appreciate the dimension from which the story is told while he or she is listening (or reading the story). She or he may or may not agree with the story that is told, but the mere fact that the listener (or reader) is listening to (or reading) the story means that he or she is sharing in the whole act of storytelling. The listener (or reader) is, therefore, also engaged in storytelling. We argue that the act of reading the stories that we share in this paper is an act that is done by the reader that engages with the Melanesian stories that we share from our perspective.

On that note, *maamaani* (story/storytelling) is a compound word that comes from *maa* (eye/eyes) as explained above, and *maania* (tell, say, inform). In this sense, *maamaani* (story/storytelling) becomes a noun when referring to the story that is told, and becomes a verb when referring to the continuous act of sharing a story as entailed by the whole act story sharing and listening/reading. That is to say, the act of telling the story and listening to it are in themselves the story and the storytelling. This understanding of storytelling becomes a seamless act of rapport. The listener (or reader) is therefore invited to share the story from the storyteller's eyes in order to engage in a participatory act that is evolving, dynamic, interactive, and unfolding. This continuous rapport then creates new relational possibilities and dimensions, offers room for critique and comments, and is welcoming of disagreements. Arosi storytelling is therefore an active, participatory, progression of sharing.

Where do we share our stories?

The stories that are shared in this paper speaks for a majority of people whose livelihoods are significantly affected by climate change. About 80% of these people live in predominantly rural contexts where they make a living through subsistence farming and fishing.⁵

In these rural contexts, a word/concept in Arosi that is applicable when referring to the peoples' homes, rural villages, Christian parishes, and island communities is known as *hanua* (home, land, place). *Hanua* is an Austronesian word similar to the Maori *whenua* and Fiji *vanua*.⁶ This word/concept is an

5 Joseph and Beu, "Church and State," n8.

6 For Fiji, see Ilaitia Tuwere, *Vanua: Towards a Fijian Theology of Place* (Suva and Auckland: Institute of Pacific Studies at the University of South Pacific and College of St. John the Evangelist, 2002).

important point of contextual reference in our stories and storytelling. We argue that the stories we share are connected to a specific *hanua* where people move and live and experience the grace of God in their rural villages.

On that note, the idea that is associated with the word/concept of *hanua* is important to Melanesian views of reality and identity, which then impacts on peoples' stories and storytelling. In other words, *hanua* refers to a particular locale that is defined by lineage, language, beliefs, practises, cultural norms and values, and Christian churches. Additionally, the idea of *hanua* is preferred and applied in our stories and storytelling because the word usefully refers to local contexts that embody a reality encompassing the natural and the supernatural world interacting together in a specific place or a locale. *Hanua* further conjures up meanings of houses, hamlets, land, lineages, and families. The term is also inclusive of spirits, trees, rocks, shrubs, animals, and familiar landmarks such as mountains, tall ancient trees, and coastlines. *Hanua* therefore serves as a distinctive contextual boundary to this paper because stories from the *hanua* form part of a story that is told by someone who is experiencing first-hand the effects of climate change.

Having said the above, we are aware that the contextual boundary of a Melanesian *hanua* is not impervious to social change. Contextual theologian, Neil Darragh, has pointed out that all contexts have a "porous" nature.⁷ What Darragh means for the Melanesian *hanua* is that socio-cultural change has taken place from the past up to the present time. These changes will continue to be experienced as ideas flow in and out of the porous boundaries of the *hanua* as people move about from context to context. The dialogical spiral that results from this contextual mix is a blessing that acts to further the storytelling that is shared across the boundaries.

What is the "stuff" of important Melanesian stories?

Stories that are important in Melanesia are associated with daily lives but are also connected to the spiritual world. In other words, Melanesian beliefs have an impact on stories and storytelling. A Melanesian story does not dichotomise the spiritual from the material world. For that reason, spirits are a present reality in Melanesian lives. The question to ask is this: what kind of stories do we share about God and what God is doing to Melanesians in our daily lives?

One significant aspect of stories and storytelling is based on the belief that God is present in our everyday affairs. This highlights the need for right

7 Neil Darragh, "Themes and Processes in New Zealand Theology," 2007, accessed 30 July 2010, <http://researchspace.auckland.ac.nz/handle.net/2292/2267>.

relationships to enhance individual and communal wellbeing. In other words, a person is well when the community is well. Moreover, the community and individuals are well only when God has right relationships with humans.

For example, one Arosi parishioner once approached me and said she needed forgiveness and absolution. When I enquired about her “sin,” she said that she had broken her relationship with another villager, and as a result her crops have been dying in the hot sun. This was a particularly extended drought period, but she contended that other people’s gardens had not been affected as her garden was. Her experiences proved that in previous years when “everything was all right” (no break in relationships) her garden did not wilt in the hot earth-baking sun. After she received her absolution, she returned four Sundays later with a basket of produce harvested from her garden for thanksgiving.

On another occasion, wild pigs had been attacking a garden that belonged to a villager who was known for his consistent lack of communal participation, especially in communal worship.⁸ The villager approached the village catechist for solution because he and his family were going to be without food to eat after six months of daily battle with wild pigs. The village catechist reminded the villager of his communal responsibilities as well as his commitments to God. Then the village catechist wrote something on a flat piece of wood, gave it to the villager, and told him to put the “notice” in the corner of his garden. The notice said: “Wild pigs, do not dig up this garden. It has been blessed in the name of God.” Obviously, pigs do not read, but in this case the pigs did “read” the notice. The garden was never dug up again and the man has since participated communally, with a deepened faith in God’s care and providence. Fruit trees were also reportedly saved in this way from flocks of marauding parrots. For instance, a “notice” was written to the parrots and stood in the middle of the bush garden amidst pawpaw trees. The birds “read” the notice and left the fruits untouched until harvested by the owner of the garden.

Writing from the context of New Zealand, Brian Harris argues that the world we live in is a “Deity-touched planet” which is “saturated with sacredness.”⁹ He would have said more had he known that in Arosi wild pigs and parrots “read” notices, although quite a good number of villagers do not read and write. Ideas about a deity-touched life also influences people’s attitude to nature. For example, I accompanied villagers to the bush to collect a special vine for a

8 Similar incidences are reported in Darrell Whiteman, *Melanesians and Missionaries: An Ethnohistorical Study of Social and Religious Change in the Southwest Pacific* (Eugene: Wipf and Stock Publishers, 2002), 340.

9 Brian Harris, “Of Tall Poppies, Mateship & Pragmatism: Spirituality in the Australian Context,” *Stimulus* 16, no. 3 (2003): 19.

new chapel building. The vines were the hanging roots of a giant creeper that crawls up tall forest trees. An old Arosi man approached a hanging vine and, still not touching the vine, began to chant a charm to “ask permission” first. Then he made a sudden tug on the hanging vine. Immediately long thirty-metre vines came tumbling down from the tree branches. Out of curiosity, I asked for an explanation as to the reasons why permission was sought from a mere creeper. The answer was: “Tell the plant that you are going to hurt it, so that it prepares and allows its fingers to break from the tree branches way up there, or we’ll end up with only short vines.”

The above stories are based on the belief that God is not a distant being with no interest in the needs of one rural villager who is battling with wild pigs, or a woman who needed rain for her garden. To these villagers, God is with us, here and now, and cares about us because we live and move and have our being as God’s children. That is the way of Melanesian beliefs as impacting on our stories and storytelling. We are sharing our stories, yes, but we do this because God is also sharing God’s story through our experiences, which may mean the eventual submersion of our islands.

Nigel Kelaepa—where is my great-grandmother?

I come from a place called Ontong Java Atoll which lies some 500 km to the north of Santa Ysabel Island in the Solomon Islands Archipelago. My atoll home is made up of about 120 beautiful low-lying coral islands barely two meters above sea-level and ringed around a boot shaped lagoon that is approximately 70 km long by 30 km wide. My ancestors originally migrated across the Pacific Ocean from a place called Niua (location unknown to us today) and settled on Ontong Java more than one thousand years ago. These ancestors were themselves originally descendent from people who journeyed across the Pacific Ocean from the ancestral homeland of the Polynesian peoples known as Havaiki (somewhere in the Central Pacific) to Niua.

It seems our ancestors migrated twice over the course of a long period of time from Havaiki to Niua, and then from Niua to Ontong Java. Our indigenous name for the atoll is Luaniua which means “second” (*Lua*) Niua. It is not known to our people today why our ancestors migrated from these previous homelands: possibly due to war, or shortage of food and land due to over-population, or to escape sickness and pestilence. Or perhaps it was for adventure, or in response to visions of a new homeland from the traditional gods. The reason for moving remains unknown.

Today, our people are once more faced with the reality of another impending migration. This time it is not because of any one or combination of the above

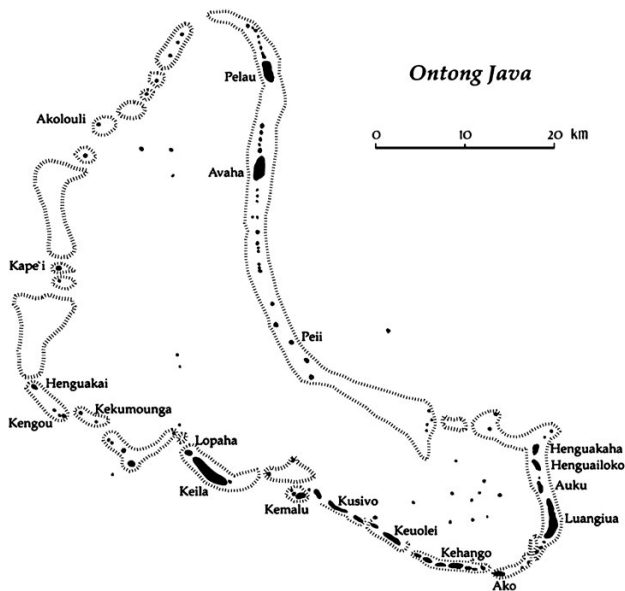


Figure 3: Map of Ontong Java Atoll showing main villages and islands of Luaniua, Pelau and Avaha.

reasons but is due to the devastating effects of climate change on our atoll environment leaving our people with no other choice other than to move out within the next 5 to 10 years. This is the story of our experience with climate change in the last 15 to 20 years.

Our people are Polynesian with a unique thousand plus year culture and language that is closely related to the Samoan language group. During the late 1700s and throughout the 1800s, our population was severely reduced from 5,000 to only 700 by 1910 due to illness wrought by contact with foreigners such as European whalers and traders. Today our population in the atolls has bounced back to around 4,000 with a further 1,000 or so living outside of the atoll in other parts of the Solomon Islands.

However, our unique culture and identity is in danger of disappearing due to the destructive effects of climate change. Our once thriving taro gardens which have sustained our 5,000 plus population for more than a millennium cannot now sustain a 4,000 plus population spread over two big villages and a few smaller hamlets in the islands. In the last fifteen to twenty years saltwater intrusion into the freshwater lens of our islands has resulted in crop failure of the staple swamp taro crop as well as rendering previously drinkable wells into brackish and undrinkable wells which we only now use for bathing. We can only get drinking water now from water tanks. As such, our inadequate



Figure 4: Inundated brackish swamp taro gardens (Luaniua), and dying taro gardens overgrown with reeds (Pelau).

food source in the islands is being subsidised by processed food such as rice, flour, biscuits, sugar, tea, and so on, from the local shops brought in by cargo ships from the Capital Honiara on every monthly shipping schedule. Our people are frequently hungry and unhealthy these days because there is not enough food from the gardens to feed their growing households and populace. This is exacerbated by scarce availability of income sources in the islands. Copra, being the more common source of income, helps very little in the way of making ends meet because of the very low prices offered by local buyers for local copra produce.

Increasingly, our people are calling on the government to send in disaster relief supplies to feed our hungry atoll populace. Some responses have been made but these have been *ad hoc* and haphazard over the last several years with no proper and coordinated effort by responsible government authorities to this difficult situation, one which has grown steadily worse in the last five or so years.

Up until some fifteen years ago, we had three main public settlements or villages in the atoll known as Luaniua, Pelau and Avaha where our people lived. Today Avaha Village which used to have a population of more than 500 people has totally disappeared with close to 50 residential homes and 20 plus outdoor kitchens washed away by severe soil erosion and king tides, as well as sea-level rise over the last 20 years.

In December 2009 I visited Avaha village because I wanted to see where my great grandmother's grave was. The last time I had stepped on Avaha was more than twenty years ago and I had remembered a beautiful and bustling village with a sizeable population and area comparable to Pelau village. What I saw of Avaha on my return shocked and saddened me to the core. Severe coastal erosion and sea-level rise resulted in severe destruction of the village



Figure 5: A gravestone lies derelict on the shore while my guide can be seen trying to locate the now inundated cemetery. Image copyright © 2014 Stephen Limkin (Light Studios). Reproduced with permission.



Figure 6: Nigel at Avaha cemetery. The gravestones are now under one metre of saltwater about 20 metres from the shore (September 2014).

with the majority of the houses falling into the sea and leaving only 11 of the original 50 houses still standing. I tried to locate the village cemetery where my grandmother told me that her mother, aunties and other relatives were buried but could not find it. A local guide told me that the cemetery had also fallen into the sea and led me to where I could see the cemetery gravestones lying a metre underwater at low tide. It was one of the saddest days of my life.

The displaced Avaha populace has since resettled on Pelau but this village is also in danger of disappearing over the next two or so decades if the current trend of sea-level rise, severe storm surges and coastal erosion continues unabated. Throughout the atoll the sad fact of islands shrinking and becoming smaller is clearly evident signalling a bleak future for the people.

With the land being eroded away, crops no longer able to be grown, the abundance of the land being destroyed by rising sea-levels and salt from below and above, and, fresh water no longer obtainable from wells, our people will have to start leaving our original homeland for a new homeland where we can re-settle and build our communities again. Resettlement to another part of the Solomon Islands or to another country overseas, if at all possible, is the bleak reality and future facing the people of Ontong Java Atoll today. It is not what our people want and many say they would stay on and sink with the islands if it comes to that.

Yet in order for us to survive as a people, we must plan toward this inevitability with urgency, because our islands are disappearing from the map at an alarming rate. Will we as a people also disappear from the face of the earth? Are we doomed as a people to be assimilated into a foreign but greater culture we find ourselves in as we resettle in a new place of domicile far from our original homeland and be overwhelmed and lose our identity and culture in the process?

Keith Joseph—Stranger in a strange land

I come to the Pacific as a fringe-dweller—for we Australians dwell on the fringe of our continent, on the fringe of the great ocean but always clinging to our beaches and shores. We may be an island-continent, but we do not live in the ocean as do our oceanic neighbours. For us the ocean is something to be feared and contained: a place of cyclones and sharks, which most Australians only ever fly over.

I first went to the Solomon Islands in 2004 as a member of a peace-keeping force after the civil war that had paralysed the country, and after leaving the police in 2006 became a lecturer at the Bishop Patteson Theological College. It was in the Solomons that I was called by the Anglican Church of Melanesia



Figure 7: Avaha Village in 2009 with only 11 houses left of the original 50. Image copyright © 2009 Stephen Limkin (Light Studios). Reproduced with permission.



Figure 8: Avaha Village 5 years later in 2014 with only one house, outdoor kitchen, and the church house remaining. Image copyright © 2014 Stephen Limkin (Light Studios). Reproduced with permission.



Figure 9: Partly eroded cemetery at Luaniua Village that looks to be going the same way as the Avaha Cemetery. Image copyright © 2014 Ben Knight (Displacement Solutions). Reproduced with permission.

to the priesthood, and became the teacher of those who have taught me so much.

On one occasion I was climbing with a group of novices (trainees) of the Melanesian Brotherhood, to conduct a retreat on top of a mountain a couple of days before they were to be admitted as Brothers. The mountain, which towers above the college where I taught, is covered in jungle and some 500 metres high. The novices were half my age and twice my fitness, but I found it a difficult climb and at one point was over a crevice, with novices holding each of my limbs or pushing me in the back. Once we were over the obstacle and I could finally enjoy the view of mountains and ocean, one of the novices explained: *Waka blong yu antap: waka blong mifala fo tekem yu antap* (roughly, “Your job is on top of the mountain: our job is to get you there”). No one asked permission, no one expected me to be the supremely gifted big man. Each of us had our essential work and in this we formed community. The novices, myself, and the mountain contained and formed by the far oceans: we formed a community not in competition with each other, but in union with God.

Of course, after the retreat we came down from the mountain and returned to the ordinary business of the world. My life intertwined with my students, among them Aram and Nigel. Aram is fired by a passion to bring Melanesia and the broader Pacific to the world: to show that the power of the story is

not a quaint relic but the way we need to go to bring life and power and love to theology. Nigel watches as his beautiful island home is washed away, and his ancestors sink into the ocean without trace, and his people face exile. He despairs and hopes at the same time. And I rage at the injustice of it all, as Nigel's people have their life and future and culture taken away from them to feed the insatiable demands of the West and Asia for luxuries and trinkets such as big houses and big cars and air-conditioning and entertainment systems in every room.¹⁰ This is not an academic exercise: our stories weave us all together, and we share a common fate. The ocean which brings life to Melanesia can bring destruction to us all, and our grandchildren will curse the trinkets we bequeath to them.

Conclusion

What is God's story as shared with Melanesians in their approach to the environment? How could Melanesian ecotheology inform the world? To answer these questions, discussion will touch on the concept of *mana* and its impact on Melanesian narrative that we share.

We argue that life as lived on the islands of Oceania is a continuation of the greater story of God's love shown to humanity. God's creative power has enabled islanders to be who we are. We therefore affirm that the Spirit of God moves through the sea and the islands. God is involved in creation as a moving God, and sanctifies all of creation by the breath of the Spirit (Genesis 1:1; Psalm 24:1). The islands and the sea are part this story, and we are custodians of the great Pacific Ocean that we call our home.¹¹ We therefore participate in God's creative story as we make a living on the little land that is available in the midst of the biggest ocean in the world. The God we speak of is the God who moves before creation, is involved in creation out of the creative agency of God, renews and saves creation through Jesus Christ, and sanctifies all of creation through the actions of the breath (in Hebrew, the *ruach*) of the Holy Spirit. Further, through *mana* the Melanesian environmental approach speaks of the *ruach* of God being intimately bound up with people. This question is associated with the Oceanic concept of *mana* and its impacts on Melanesian religious beliefs as intertwined with Melanesian *kastom*, spirituality, and wellbeing.

10 Keith Joseph, "Bitter Reflections on Climate Change" in *Anglican Encounter* (Newcastle: Diocese of Newcastle NSW, 2012).

11 See Epeli Hau'ofa, "Our Sea of Islands," in *A New Oceania: Rediscovering Our Sea of Islands*, ed. Vijay Naidu, Eric Waddell, and Epeli Hau'ofa (Suva: The University of the South Pacific, 1993).

Henry Codrington notes that “the religion of the Melanesians consists, as far as belief goes, in the persuasion that there is a supernatural power about belonging to the region of the unseen; and, as far as practice goes, in the use of means of getting this power turned to their own benefit.”¹² Codrington is referring here to *mana*, and the profound impact of *mana* as involved in the creative actions of God in the world. God’s *mana* is present in creation, is active in human enterprises, and enables the people of Oceania to participate in the story that God is sharing with humanity through Melanesians. The word/concept of *mana* is therefore a vital link in Melanesian daily life and their approach to the environment.

Charles E. Fox, an Anglican missionary priest who spent over sixty years with the Melanesian Mission, writes that *mana* can also be thought of as having the quality to *mana*-ise. Fox uses the Arosi term *ha’amena* (to make a thing *mena*; *mena* is Arosi for *mana*) to refer to this *mana*-isation.¹³ God’s actions in the world therefore *mana*-ises who we are, what we do, and where we live.

In addition to Fox, Esau Tuza, a Melanesian theologian, writes that *mana* is:

1. Determined by a person’s own skills or gifts in life, and can be transmitted from father to son, or mother to daughter.
2. A gift from the supernatural world; no efforts of humans can bring about the presence of *mana* because it exists as part of a blessing from beyond the world we live in.
3. Accessed through the *Sope* ritual, where an ancestral house is built with all the rituals and incantations, and wherein ancestors are invoked to imbue the living with their *mana* so that it is made to operate or to work successfully.¹⁴

Tuza further notes that in order for *mana* to operate, there needs to be a living relationship between humans and spirits. When that relationship is alive and thriving, *mana* does what Fox refers to as *mana*-isation.¹⁵ In other

12 R. H. Codrington, *The Melanesians: Studies in Their Anthropology and Folk-Lore* (Oxford: Clarendon Press, 1891), 118–20. See footnote 1.

13 Charles E. Fox, *The Threshold of the Pacific* (London: Kegan Paul, Trench, Trubner & Co., 1924), 252.

14 Esau Tuza, “Spirits and Powers in Melanesia,” in *Powers, Plumes and Piglets: Phenomena of Melanesian Religion*, ed. Norman C. Habel (Bedford Park: Australian Association for the Study of Religions, 1979), 104–5. The ritual is called *Sope* in Roviana, New Georgia, and *Hope* in Bambatana, Choiseul.

15 See also Roger Keesing, “Rethinking Mana,” *Journal of Anthropological Research* 40 (1984).

words, *mana* is perceived as being able to operate in a way that *mana*-ises the humans and where they live. In this regard, the actions of the Spirit in the world *mana*-ises the relationships people have with each other, with the environment, and with God. The Holy Spirit of God, as well as Melanesian ancestral spirits (referred to in Melanesia as “devils”) are all part of the environment, and exist in the here and now with human beings. *Mana* from the Spirit and/or spirits is therefore able to *mana*-ise individuals and communities where they are as they are.

From a Melanesian ecopneumatological perspective, *mana* can therefore be conceived of as an inherent part of the being of the Trinitarian Godhead. This is *mana* that proceeds from the Father and the Son, and sanctifies creation by the creative *mana* from the Spirit, and moves within the being of God in a relationship. This brings up the issue of relational *mana*,¹⁶ and the movement of love that flows within the being of the Trinitarian Godhead.¹⁷ Clark H. Pinnock writes that “the Spirit as the bond of love” in the “Christian understanding of God as pure relationality” invites us to “learn that the Creator is not static or standoffish but a loving relationality and sheer liveliness.”¹⁸ This depicts a character of God as a “doing-something” God who has/is *mana*, and this *mana* is bonded in relationships of love that the Spirit wishes to see in human form to further God’s will and purposes as a reflection of that relationship. In Melanesian *kastom*, Pinnock’s statement makes sense when we replace the word *mana* in brackets beside the words for power and freedom:

As loving communion, God calls into being a world that has the potential of realising loving relationality within itself. God projected a created order in which he delights and to which the Spirit gives life When things went wrong through the misuse of freedom [*mana*], God sent forth the Spirit on a mission of restoration through incarnation, so that injury and brokenness might be healed from within our nature by God’s power [*mana*] Healing continues to happen through the power [*mana*] of the Spirit, who indwells the body of Christ, and that power [*mana*] is present and real both sacramentally and charismatically, so that justice and salvation may be brought to all the nations.¹⁹

16 See Matthew Edward Jones, “Mana from Heaven? A Theology of Relational Power in the Context of the Murder of Seven Melanesian Brothers in Solomon Islands” (University of Auckland, 2008).

17 See Clark H. Pinnock, *Flame of Love: A Theology of the Holy Spirit* (Downers Grove: IVP Academic, 1996), 22-23.

18 *Ibid.*

19 *Ibid.*, 23.

In addition to Pinnock's view, Veli-Matti Kärkkäinen argues what Melanesians will agree with, which is that God's Spirit "is no general spirit hovering above the cosmos but a Person of the Triune God who indwells believers and creation in specific and tangible ways."²⁰ When it comes to ancestral spirits, they live where we live. Ancestral spirits who are *mana* and have *mana* therefore have a vested interest in the affairs of people. Moreover, this *mana* can be accessed and directed/applied for the purposes of ensuring that the living are cared for and protected.

For Melanesians, Pinnock's and Kärkkäinen's words mean that God is continuously present in Melanesian contemporary life in order that we can continue to live and move and have our beings (Acts 17:28) as inspired by the Spirit of God that is moving through Jesus in the church as the Body of Christ. Melanesian ecotheology therefore speaks of God's Spirit as moving over creation and includes the context of Melanesia, the whole of Oceania, and beyond. God's *mana* is moving over the face of Oceania, working in and through cultural contexts over time and in all places. This means that the breath of the Holy Spirit that is present in the utterances of God spoken during creation, which brought forth the created order, is imbued with *mana* that is life, gives life, and sustains life. This breath from God that is *mana*, has the *mana* that is imbued in creation through God's *manawa* (breath), and can be gifted and transmitted through uttered words and realised actions issuing from that source of breath.²¹

Given the idea of relational *mana* (following Tuza), God is a God of relationships. God moves where connections are established and strengthened. God's openness to relationships with sinners is a character of a loving God. However, Godly relationships of love connects in order to cleanse sinners with the understanding that a cleansed and blessed sinner is made whole in Jesus Christ, and is therefore aware that the old has passed and the new has come. The action of the *mana* of God's redemptive love blesses sinners and prospers relationships that abide in God's loving presence. The hoped for outcome is that a sinner is blessed by God and continues to manifest God's love in thought, deed, and word.

What, then, can others share in this story that we are telling? We argue that humans manifest *mana* with the responsibility to act accordingly because human beings have been accorded God's personal involvement. In other words, God who created the word through the breath of the Holy Spirit became

20 Veli-Matti Kärkkäinen, *Pneumatology: The Holy Spirit in Ecumenical, International, and Contextual Perspective* (Grand Rapids: Baker Academic, 2002), 9.

21 This relates once again to Tuza, "Spirits and Powers in Melanesia," 104.

personally involved; the hand of God is involved in creating humanity, which was done after a Trinitarian consultation and decision-making that follows from an outward movement of *mana* depicting the nature of God's relational love (Genesis 1:26). This personal involvement by God in creating human beings is defined by Martin Buber as the "I-You" relationship, which is the opposite of the "I-It" relationship.²² The "I-It" relationship is that which is found in, for example, a person and a reading book. Such a relationship is impersonal and is beneficial only to the "I," the person, and not to the "It." The "I-You" relationship however is mutually beneficial in a reciprocal relationship that enriches both the "I" and the "You" as part of the relational nature of creation. This kind of relationship is known in the Old Testament as a covenant. In a covenantal relationship, not only is that relationship one that is channelled towards God, but also towards other people.

We therefore affirm that humans have *mana* and are *mana* as part of the privilege of being created in the image of a God who thrives in human relationships. This privilege does not mean that humans lord it over creation and others in the example of the "I-It" relationship. The "I-You" relationship must consider the nature of the "free" and "freeing" breath of God with responsibility and care. This means freedom to "do something" following the *mana* that issues forth from the breath that involves great responsibility, care, and a life that is lived accordingly as required. When we overstep, we are bound to face dire consequences.

Our story therefore means that human *mana* (the power to act responsibly) can be directed and synchronised with Godly *mana* that is present in creation and is moving and working in creation to further the redemptive actions of God. When humans misuse or abuse this *mana*, we will witness effects that will impact on life in the here and now. The responsibility to act is therefore a fulfilment of the mission of God that is borne out of the creative agency of God. *Mana* from God's moving Spirit touches life, brings healing, and renews human wellbeing. We are called as Christians to participate responsibly in the story of the movement of the God's Holy Spirit to think, say, and act in a manner that characterises a moving God who acts out of love. In this way, we *mana*-ise the lives of other people, and they in turn will *mana*-ise our lives.

In terms of ecotheology this means that we are in a process. Eco-theology is not static analysis, but an ongoing story conveying meaning and power. That power proceeds from the interaction of God and his people and his creation,

22 See Alister McGrath, *Christian Theology: An Introduction*, 3rd ed. (Oxford: Blackwell Publishing, 2001), 267.

and is in being because it is fulfilled and completed by the Spirit. The story continues; what is your part of the story?

The Very Reverend Dr Keith Joseph is the Anglican Dean of Darwin in the Northern Territory of Australia. From 2006 to 2010 he was the coordinator of degree studies at Bishop Patteson Theological College, on the island of Guadalcanal in the Solomon Islands. In 2009 he initiated the first climate change adaptation project in the Solomon Islands, along with the Rev'd Nigel Kelaepa. His PhD is in ethics.

The Reverend Dr Aram Oroï is the current Dean of Studies at Bishop Patteson Theological College, and has recently graduated from the University of Otago with a PhD in theology, on the oceanic concept of mana.

The Reverend Nigel Kelaepa is from the atoll island of Ontong Java, and together with Dr Joseph was involved in initiating climate change projects to help protect his home island. He and Dr Joseph were also presenters at a side event sponsored by the French Government at the Climate Change Conference in Paris in December 2015. He has a BTh from Bishop Patteson Theological College, and a Masters in International Development from the University of Leeds (UK).

References

- Brunner, Daniel L., Jennifer L. Butler, and A. J. Swoboda. *Introducing Evangelical Ecotheology*. Grand Rapids: Baker Academic, 2014.
- Campbell, Ian C. *Worlds Apart: A History of the Pacific Islands*. Christchurch: Canterbury University Press, 2003.
- Chilisa, Bagele. *Indigenous Research Methodologies*. Los Angeles: Sage Publications, 2012.
- Codrington, R. H. *The Melanesians: Studies in Their Anthropology and Folk-Lore*. Oxford: Clarendon Press, 1891.
- Darragh, Neil. "Themes and Processes in New Zealand Theology." 2007, accessed 30 July 2010, <http://researchspace.auckland.ac.nz/handle.net/2292/2267>.
- Fox, Charles E. *The Threshold of the Pacific*. London: Kegan Paul, Trench, Trubner & Co., 1924.
- Halapua, Winston. *Waves of God's Embrace: Sacred Perspectives from the Ocean*. Norwich: Canterbury Press, 2013.
- Harris, Brian. "Of Tall Poppies, Mateship & Pragmatism: Spirituality in the Australian Context." *Stimulus* 16, no. 3 (2003): 16-20.
- Hau'ofa, Epeli. "Our Sea of Islands." In *A New Oceania: Rediscovering Our Sea of Islands*, edited by Vijay Naidu, Eric Waddell, and Epeli Hau'ofa, 2-16. Suva: The University of the South Pacific, 1993.
- Jones, Matthew Edward. "Mana from Heaven? A Theology of Relational Power in the Context of the Murder of Seven Melanesian Brothers in Solomon Islands." PhD Thesis, University of Auckland, 2008.
- Joseph, Keith. "Bitter Reflections on Climate Change" in *Anglican Encounter*. Newcastle: Diocese of Newcastle NSW, 2012.
- Joseph, Keith and Charles Beu Brown. "Church and State in Solomon Islands." *State, Society and Governance in Melanesia*, Australian National University. Discussion Paper 2008/11.
- Kärkkäinen, Veli-Matti. *Pneumatology: The Holy Spirit in Ecumenical, International, and Contextual Perspective*. Grand Rapids: Baker Academic, 2002.
- Keesing, Roger. "Rethinking Mana." *Journal of Anthropological Research* 40, no. 1 (1984): 137-56.
- McGrath, Alister. *Christian Theology: An Introduction*. 3rd ed. Oxford: Blackwell Publishing, 2001.

- Pinnock, Clark H. *Flame of Love: A Theology of the Holy Spirit*. Downers Grove: IVP Academic, 1996.
- Tuwere, Ilaitia. *Vanua: Towards a Fijian Theology of Place*. Suva and Auckland: Institute of Pacific Studies at the University of South Pacific and College of St. John the Evangelist, 2002.
- Tuza, Esau. "Spirits and Powers in Melanesia." In *Powers, Plumes and Piglets: Phenomena of Melanesian Religion*, edited by Norman C. Habel, 97-108. Bedford Park: Australian Association for the Study of Religions, 1979.
- Whiteman, Darrell. *Melanesians and Missionaries: An Ethnohistorical Study of Social and Religious Change in the Southwest Pacific*. Eugene: Wipf and Stock Publishers, 2002.

The intelligent earth

The noosphere as a model for the more-than-human ecology

Evan Pederick

I explore Teilhard de Chardin's concept of the noosphere as a resource for ecotheology. Teilhard's Christocentric doctrine of creation suggests an application for ecotheology, but in his doctrine of human evolution and concept of the noosphere as the aggregation of human awareness Teilhard abandons his earlier commitment to a non-dualism of matter and spirit. I extend Teilhard's noosphere as a model for the more-than-human ecology that emphasises the interaction between ecological systems and human cultural and technological systems. The extended noosphere is congruent with current research in the biological sciences on information exchange and autopoiesis within ecological systems, and makes a strong connection with Biblical Wisdom themes. This model also allows Teilhard's vision of convergence on Christ-Omega to be expressed as the incarnation of relations of love within the more-than-human ecology.

In this paper I explore one of the key concepts of the thought of the French Jesuit palaeontologist-priest Pierre Teilhard de Chardin (1881–1955) as a model for ecotheology. Similarities between Teilhard's Christocentric doctrine of creation and that of patristic thinkers such as Origen have often been noted, as have parallels with the process philosophy of A. N. Whitehead.

Although the inconsistency of Teilhard's metaphysical commitment to the indivisibility of spirit and matter and aspects of his doctrine of evolution have been sharply criticised, his focus on noesis as the concomitant of evolution foreshadows contemporary research in evolutionary and ecological biology. Similarly, although Teilhard's construct of the noosphere as the realm of human intellect set free from its biological base is of little value in its original

form, its alternative definition as the intersection of human systems of knowledge and value with the noetic systems that comprise the biosphere offers a valuable conceptual space for the conversation between theology and ecological science. In this form the noosphere emphasises relationality and attentiveness to the non-human living systems of the earth, echoing the sentiment of Pope Francis in the 2015 encyclical *Laudato Si'* that the non-human creation cannot be treated as an object "subject to human domination" because all living creatures created by God "are moving forward with us and through us towards a common point of arrival, which is God."¹

In this paper I describe the broad outlines of Teilhard's thought and note its limitations, before developing the noosphere as a working model of the more-than-human ecology that suggests a human praxis of attending to the non-human creation as a subject. I argue that the noosphere makes a valuable connection with Wisdom theology and an eschatological claim for the restoration of the earth.

Brief background to Teilhard's thought

At the time Teilhard began writing on evolution and human development in a Christocentric cosmos, despite widespread public acceptance of the evolutionary development of species, there was little consensus in the scientific community in relation to evolutionary process and the Catholic Church had forbidden its theologians from engaging with what it saw as the dangerous ideas of "modernity."²

Although Teilhard's academic studies were cut short by conscription at the onset of WWI, he sketched out during his years of service as a stretcher-bearer the main ideas that would preoccupy him for the remainder of his life. In his war diaries, correspondence and essays written at the front, Teilhard developed his vision of a material creation centred on Christ and "diaphanous" with Spirit, struggling towards its destiny of union with Christ.³ Following the war, Teilhard's writings attracted negative attention from his Jesuit superiors, leading to a 1926 ban on teaching theology and publishing his evolutionary speculations. For the remainder of his career, Teilhard confined himself to

1 Pope Francis, "Laudato Si' [Encyclical Letter of Pope Francis on Care for Our Common Home]," 24 May 2015, paras. 82-83, http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

2 Ursula King, *Spirit of Fire: The Life and Vision of Teilhard de Chardin* (Maryknoll, NY: Orbis Books, 2000); Pius IX, "Dogmatic Constitution of the First Vatican Council (1869-1870)," (St Peter's Basilica, Rome, 1870), <http://www.ewtn.com/library/COUNCILS/V1.htm>.

3 Pierre Teilhard de Chardin, *The Making of a Mind: Letters from a Soldier-Priest 1914-1919* (New York: Harper & Row, 1961).

scientific publication in paleontology. The decades following Teilhard's death in 1955 however saw the publication of over two dozen books of collected essays and his major works on evolution including *The Phenomenon of Man*, *Activation of Energy* and *The Heart of Matter*.⁴ The most important of Teilhard's theological doctrines are contained in *Christianity and Evolution* and *The Divine Milieu*.⁵

In the collection of essays comprising *Christianity and Evolution*, Teilhard attempts to develop a Christology that is congruent with an evolutionary perspective. He regards the material creation as centred on Christ and in process from a state of primal chaos to convergence with a transcendent universal centre which he identifies as Christ-Omega or the "consummated" Christ.⁶ In his doctrine of creation Teilhard begins not with a single creative act in which the universe is brought into being but as a continuous pressure of transformation exerted on a universe beginning from a state of primal chaos.⁷ This marks Teilhard's approach as representative of a broader process perspective and comparable to the metaphysics developed by his contemporary A. N. Whitehead.⁸ Teilhard sees his Christology as being in the tradition of Irenaeus, Origen and Maximus the Confessor who similarly link the doctrines of creation and Incarnation.⁹ Teilhard is particularly close in his Christology to Origen, who similarly sees Christ as present throughout the whole of creation.¹⁰ Both Origen and Teilhard rely on St Paul's metaphor of the body of Christ, and suggest the world (or cosmos) itself is the cosmic body of Christ.¹¹

Like Origen, Teilhard seeks to understand the Incarnation focussed not just narrowly on the person of Jesus of Nazareth, but in the broadest terms to

4 Pierre Teilhard de Chardin, *Activation of Energy* (New York: Harcourt Brace, 1970); Pierre Teilhard de Chardin, *The Phenomenon of Man* (London: Collins, 1970); Pierre Teilhard de Chardin, *The Heart of Matter* (San Diego: Harvest, 1974).

5 Pierre Teilhard de Chardin, *The Divine Milieu* (London: Collins, 1968); Pierre Teilhard de Chardin, *Christianity and Evolution* (London: Collins, 1971).

6 Teilhard de Chardin, *Christianity and Evolution*, 70-71.

7 *Ibid.*, 22.

8 Ian G. Barbour, "Teilhard's Process Metaphysics," *Journal of Religion* 49 (1969): 136-59; Donald Viney, "Teilhard and Process Philosophy Redux," *Process Studies* 35 (2006): 12-42.

9 Teilhard de Chardin, *Christianity and Evolution*, 45, 180, 191, 197.

10 Gerald Bostock, "Origen's Doctrine of Creation," *Expository Times* 118, no. 5 (2007): 222; James A. Lyons, *The Cosmic Christ in Origen and Teilhard de Chardin: A Comparative Study* (New York: Oxford University Press, 1982), 76-79; George A. Maloney, *The Cosmic Christ: From Paul to Teilhard* (New York: Sheed and Ward, 1968), 121.

11 Lyons, *The Cosmic Christ in Origen and Teilhard de Chardin*, 77 footnote 21, citing Origen's homily on Ps 36.

include the whole of the physical creation.¹² Both Teilhard and Origen believe in a cosmic redemption that goes beyond the issue of personal salvation to include the radical transformation of the whole creation.¹³ Where Teilhard does not follow Origen is in the explicit linking of the Neoplatonic ideas to divine Wisdom. Origen incorporates Wisdom themes in his Christology, making creation a reflection of eternal Wisdom in which “creation was always present in form and outline.”¹⁴ Nevertheless, Teilhard’s doctrine of universal convergence functions in a way that is equivalent to Origen’s Christian Neoplatonism because the true identity of every created thing is known in Christ as its final cause. Teilhard extends the doctrine of the Incarnation by drawing an implicit parallel between the union of divinity and humanity in Jesus of Nazareth with the evolutive union of humanity and the cosmic Christ.¹⁵

Teilhard claims that evolution always proceeds in the direction of complexity and consciousness. He understands consciousness not as a new phenomenon that emerges *ex nihilo* at a particular point in the evolutionary process, but as a quality of material reality that becomes evident as a function of the increasing complexity of material forms.¹⁶ For Teilhard, interiority is ubiquitous in creation and he exalts matter as “diaphanous” with spirit, developing a metaphysics that sees matter as having both an external form and an interior quality which he refers to as the “within.”¹⁷ This dual aspect of matter is mirrored in a theory of energy as having both a centrifugal or outwards aspect as well as a “radial” or “centripetal” aspect. Teilhard sees this as the energy of convergence towards greater complexity and ultimately consciousness.¹⁸ In common with many evolutionary theorists of his time, Teilhard assumes a sort of “privileged axis” of evolution leading towards the human, and this aspect of his thought has attracted criticism.

Teilhard’s emphasis on noesis as both the driver and the main axis of evolution reveals an implicit Wisdom orientation—just as Origen identifies the divine ideas with divine Wisdom and thus with Christ, so Teilhard recognises the evolutionary emergence of noetic complexity as process towards Christ as divine Wisdom. In line with his insistence on the inseparability of spirit

12 *Ibid.*; Teilhard de Chardin, *Christianity and Evolution*, 87.

13 Lyons, *The Cosmic Christ in Origen and Teilhard de Chardin*, 78.

14 Bostock, “Origen’s Doctrine of Creation,” 223 citing Origen Prin. 1.4.4.

15 Christopher F. Mooney, *Teilhard de Chardin and the Mystery of Christ* (London: Collins, 1966), 179.

16 Teilhard de Chardin, *Christianity and Evolution*, 107-9.

17 *Ibid.*, 107; Teilhard de Chardin, *The Phenomenon of Man*, 64.

18 Mooney, *Teilhard de Chardin and the Mystery of Christ*, 38-39, 52-53.

and matter, he sees physical complexity as a necessary concomitant of noetic development. He also holds that the overall direction of evolutionary process towards complexity-consciousness belies the apparent randomness of evolutionary process. Central to this point is Teilhard's concept of "groping" as the incessant experimentation of life which appears random but is both purposive and persistent.¹⁹

Teilhard insists that although the appearance of novel forms through evolution may at times appear discontinuous, new forms are always adumbrated in what has gone before. The primary example of this is the emergence of self-reflexive consciousness ("hominisation") that is evidently unique to human beings.²⁰ This marks the end of the initial phase of evolution characterised by Darwinian processes of random variation and natural selection, and the beginning of a qualitatively different process in which the ability to manipulate the natural environment frees the human species from dependence on random external factors.

Beyond this point, Teilhard's doctrine of human evolution lacks both scientific and theological credibility. He speculates that the growth of human consciousness creates a psychic concentration within the small physical space of a single planet. Teilhard names this the noosphere, "the thinking layer, which ... has spread over and above the world of plants and animals."²¹ This constitutes the beginning of a new phase of convergence on the universal centre. In the noosphere human consciousness is sharpened and transfigured, and in the paradox that is the "essential immiscibility" of individual consciousness and the perfection of mutuality humanity enters the stage of unification with Omega.²² Here, Teilhard's evolutionary doctrine converges with his evolutionary Christology, as the universal centre towards which the evolutionary tendency towards complexity-consciousness is directed is the risen and glorified Christ.

Teilhard suggests that at some point after the formation of the noosphere human life will shed its connection to the material entirely, leading to "the ultimate breakup of the partnership complexity/consciousness, to release, in the free state, a thinking without brain."²³ With this suggestion Teilhard

19 Teilhard de Chardin, *The Phenomenon of Man*, 121.

20 *Ibid.*, 187.

21 *Ibid.*, 200-201; Pierre Teilhard de Chardin, *Human Energy* (New York: Harcourt Brace, 1969), 242.

22 Teilhard de Chardin, *The Phenomenon of Man*, 285-88.

23 Pierre Teilhard de Chardin, *The Appearance of Man*, trans. J. M. Cohen (London: Collins, 1965), 264; Mooney, *Teilhard de Chardin and the Mystery of Christ*, 185.

abandons his earlier commitment to the inseparability of matter and spirit, and this is a major flaw in his thought.

Critique of Teilhard

From the point of view of ecotheology, Teilhard's model initially looks promising with its metaphysical commitment to creation as centred on Christ and hence of matter as interwoven with spirit. However his principal concern is human development, and as he turns to this he apparently abandons his non-dualistic view of material creation. This makes his contribution ambiguous from an ecotheological perspective. Teilhard's evolutionary doctrine driven by a strong teleological finalism has been heavily critiqued from the perspective of ecological science, and theological criticism has focussed on his naive trust in human technology, the apparent weakness of his doctrine of sin and the disconnection of his cosmic Christ from both the historical Jesus and a coherent trinitarian doctrine. While much of the criticism of Teilhard's thought is warranted, it is important to note that he also foreshadows some contemporary developments.

Like many of his contemporaries both within the scientific community and the public at large, Teilhard's "version" of evolution was not Darwinian. Despite the runaway success of *On the Origin of Species* following its 1858 publication, Charles Darwin's suggested process of random variation and natural selection was tacitly ignored by many even of his closest supporters. Darwin did not propose a cause for random variation within species, and this would have to wait until the 1901 rediscovery of Gregor Mendel's work on mutation and the development of genetic theory during the 1920s. During the second half of the 19th century and well into the 20th century, scientific opinion was divided between mechanistic explanations such as that of Darwin, and developmental models that like Teilhard's model relied on teleological explanations.²⁴ French philosopher Henri Bergson in his 1907 *Creative Evolution* brilliantly critiqued both scientific mechanism and teleological finalism as equally deterministic, proposing a greater emphasis on the autonomy and agency of living creatures themselves.²⁵ However, from the 1920s the weight of scientific opinion was behind the "modern synthesis"

24 Peter J. Bowler, *The Non-Darwinian Revolution: Reinterpreting a Historical Myth* (Baltimore: Johns Hopkins University Press, 1988).

25 James DiFrisco, "Élan Vital Revisited: Bergson and the Thermodynamic Paradigm," *The Southern Journal of Philosophy* 53 (2015): 54-73. See also Etienne Gilson, *From Aristotle to Darwin and Back Again: A Journey in Final Causality, Species, and Evolution* (Ignatius Press, 2009), 110-13.

approach that combined Darwin's mechanistic proposal of random variation and natural selection, and the explanation of mutations provided by genetic theory.

Scientific critique of Teilhard's evolutionary thought from the date of its first publication in 1965 from the perspective of the "modern synthesis" approach dismissed his strongly teleological view of development because it did not take sufficient account of the random nature of natural variation.²⁶ However critique of Teilhard from the "modern synthesis" perspective is itself outdated. Developments in evolutionary science from the 1970s onwards have increasingly supported Bergson's "inadequate finalism" based on the agency of organisms themselves, and in the 21st century research from an informatic perspective has also reinforced Teilhard's own emphasis on the central role of noetic processes in evolution.

The first cracks in the façade of the modern synthesis perspective appeared during the 1970s with the advent of behaviourist approaches. Experiments carried out by Waddington on fruit flies in 1942 had demonstrated that acquired behaviours could indeed influence evolutionary outcomes. Once a species had acquired a certain behaviour in order to take advantage of local environmental conditions, natural selection operated to favour genomic variations that supported that behaviour. From the late 1960s biologists came to accept "the fundamental purposiveness and partial autonomy of living systems" and the observable observable "internal teleology" displayed by living organisms.²⁷ The behaviourist focus on the autonomous intentional system of organisms echoes Teilhard's idea of the "within" by suggesting that organisms actively and purposefully search for adaptive solutions through exhaustive trial and error.

A stronger parallel to the "within" is provided by 21st century research that emphasise the function of noetic systems in evolutionary process. A systems approach to biological evolution uses cybernetic concepts to describe the relationship between goal-oriented behaviour and the external environment. Corning notes that cybernetic control processes have been discovered at various levels, including morphogenesis, cellular and neuronal network activity, as well as in feedback processes that influence behaviour.²⁸ The emphasis on the role of informational systems in current evolutionary

26 C. Deane-Drummond, *Christ and Evolution: Wonder and Wisdom* (Minneapolis: Fortress Press, 2009), 40.

27 Peter A. Corning, "Evolution 'on Purpose': How Behaviour Has Shaped the Evolutionary Process," *Biological Journal of the Linnean Society* 112 (2014): 242-60.

28 *Ibid.*

research reflects Teilhard's less precise notion of the "within" as fundamental to evolutionary process.

This informational or cybernetic approach is also used by James Shapiro in his 2012 study of the cellular-level processes involved in biological evolution.²⁹ Shapiro's research demonstrates that even single-celled organisms are capable of influencing evolutionary development by writing changes into the organism's genome. Shapiro comments that "the capacity of living organisms to alter their own heredity is undeniable. Our current ideas about evolution have to incorporate this basic fact of life."³⁰ Shapiro's research thus implicates complexity and noetic interaction in evolutionary process at even the simplest level of organic life. This does not diminish the role of probabilistic factors but does suggest, as Teilhard claims in his idea of "groping," that organisms search for adaptive advantage in ways that are systematic and purposive. The current emphasis on innovation and autonomy as drivers of evolution echoes Bergson's agential perspective and also Teilhard's notion of the "within" as fundamental to evolutionary process.

The upshot is that contemporary developments in biological science emphasise the agency of living organisms rather more than Teilhard does, but agree in recognising evolution as weakly teleological. The picture of evolutionary process has become more complex, incorporating information processing and noetic control at the cellular level.

Theological critique of Teilhard has centred on his subordination of Christ to created reality, his disconnection of the doctrine of Christ from the historical Jesus and weakening of the doctrine of evil.³¹ The difficulty partially arises from his adoption of a cosmic model of Christ without a rigorous trinitarian approach or a developed soteriology that connects his doctrine of creation with the narrative of crucifixion and resurrection. This is accentuated by his "Christomonism," or separation of the cosmic Christ from the historical Jesus. These Christological critiques of Teilhard's model ultimately reflect the unsystematic nature of his thought, and cannot be addressed within this paper.³² A way forward is however suggested by the recognition of an implicit Wisdom orientation with Teilhard's thought.

29 James Alan Shapiro, *Evolution: A View from the 21st Century*, Kindle edn (Upper Saddle River, NJ: FT Press Science, 2013).

30 *Ibid.*, loc. 0303.

31 Deane-Drummond, *Christ and Evolution*, 40.

32 In *Bonaventure and the Coincidence of Opposites* (Chicago: Franciscan Herald Press, 1978), 255ff, Ewert Cousins notes the parallel between Teilhard's Christocentric doctrine of creation and that of the 13th century Franciscan thinker, St Bonaventure. Teilhard's thought may be made more theologically accessible by developing this parallel.

The criticism that Teilhard too easily dismisses the seriousness of evil and suffering as an evolutionary by-product is problematic from an ecotheological perspective. As Deane-Drummond points out, Teilhard's "naturalisation" of evil as the suffering and stress of an evolving universe runs the risk of excusing human evil as an unavoidable aspect of progress. Teilhard does offer a nuanced extension of the doctrine of evil and suffering that embraces the suffering of the whole creation. In *Christianity and Evolution*, Teilhard describes evil as a "shadow of the creative act" because of the tendency of "the multiple" to resist the pull towards unification.³³ He describes the passage of creation from the primal chaos (the "multiple") towards coherence as a struggle, and links this struggle and its associated suffering with the cross. Within the dialectic of resistance and desire for unification that is evolution, Teilhard claims the cross as a divine act by which Christ reconciles that which is alienated. Thus, the Crucified One "bears the pain of evolutionary becoming, predation, suffering and death as the concomitant of evolutionary process." Created reality, with its dialectic between flourishing and growth, competition and suffering, is cruciform. Teilhard notes that this understanding of redemption does not supplant the traditional notion of expiation for moral sin, but augments it with the sense of overcoming resistance to unification.³⁴

Nevertheless, from an ecotheological perspective it is difficult to accept Teilhard's understanding of the suffering of the more-than-human creation as simply the unavoidable price to be paid for evolutionary progress. Teilhard's identification of the suffering of creation as the suffering of Christ is problematic because such a move requires the recognition of creation as a site both of sin and redemption. Teilhard does not provide a narrative for the redemption of the whole created order, and in his account of human evolution even suggests that the material creation is to be jettisoned as a ballast to unification with Christ-Omega. This needs to be corrected in any extension of his thought.

The noosphere and ecology

Within Teilhard's thought the noosphere stands out as his least scientific and most unhelpfully utopian idea, as well as the point at which he inexplicably departs from his own initial premise that matter and spirit are indivisible. I have however affirmed Teilhard's view of creation as centred on and in process towards Christ, and defended his noosphere concept as recognising

33 Teilhard de Chardin, *Christianity and Evolution*, 84.

34 *Ibid.*, 84-85.

the noetic character of natural systems. I wish now to extend the noosphere as a model for the more-than-human ecology.

The concept of a noosphere was not Teilhard's sole idea, but arose from discussion in Paris during the 1920s between Teilhard, the French philosopher Edouard Le Roy and the Russian geochemist Vladimir Vernadsky. All three subsequently used the term, "noosphere," to describe related but not identical ideas.³⁵ While for both Teilhard and Le Roy the noosphere represented the space of human awareness, for Vernadsky the noosphere is envisaged as the intersection of human systems with the biosphere, and so represents the transformation of natural systems by human intelligence and technology.³⁶ This conception of the noosphere recognises both the inescapable biological context of human life and the growth of human awareness to become a powerful force in the shaping of the natural systems of the earth. The first extension that is required for Teilhard's thought is to use Vernadsky's definition of the noosphere.

For Vernadsky, the fundamental driver of the noosphere is science.³⁷ Vernadsky's noosphere also recognises the effects of human technological changes and cultural shifts on other species and living systems, and serves as a useful reminder that humanity inescapably shares the resources of the earth's natural systems and productive capacity with a household of species. Vernadsky's use of the noosphere, like Teilhard's, recognises the enormous capacity of human technology, but unlike Teilhard's has both an optimistic and a pessimistic sense, suggesting that human technology carries risks unless it is sensitive to the needs and limitations of natural systems. While in Teilhard's terms the noosphere marks the emergence of human life from dependence on materiality, Vernadsky's definition of the noosphere as a process and a set of interrelationships constitutes the "rationalisation of man's interaction with nature."³⁸

A final point regarding Vernadsky's noosphere construct is that it denotes not an object or a stable point but a rapidly changing and possibly unstable process with implications both for human life and natural systems. While the noosphere points to the vulnerability of natural systems, it also recommends urgent and fundamental changes to human institutions which must engage in a new and more inclusive way with ecological systems. The (Vernadskian)

35 Paul R. Samson and David Pitt, *The Biosphere and Noosphere Reader: Global Environment, Society and Change* (London; New York: Routledge, 1999), 4-5.

36 *Ibid.*, 6.

37 E. P. Semenyuk, "Role of Informatics in the Ecologization of Society," *Scientific and Technical Information Processing* 39 (2012): 1-12.

38 *Ibid.*, 9.

noosphere for this reason provides a realistic model for the more-than-human ecology, and as I shall argue also suggests a theologically coherent interpretation of Teilhard's denouement of convergence on Christ-Omega.

A second extension is required in relation to Teilhard's doctrine of creative transformation—the divine “pull” on real entities in the direction of complexity-consciousness that leads to the evolution of ever more complex forms, and in more general terms is expressed in the tendency towards coherence (amorisation) or love. Here, Teilhard's evolutionary doctrine falls into the same error as that of mechanistic scientific models that assign an essentially passive role to living organisms: neither model actually distinguishes in a meaningful way between living and non-living matter. Teilhard's model may however be augmented by Bergson's emphasis on the autonomous agency of living organisms, so that the creative transformation of the divine lure towards complexity-consciousness is exercised in and through the freedom of real entities. A similar point is made by Teilhard's contemporary, the process philosopher A. N. Whitehead who insists that creativity and freedom are attributes of every actual occasion. This extension retrieves Teilhard's model of convergence from what Bergson identifies as the determinism of teleological finalism.

The noosphere as a model of the more-than-human ecology thus comes to reflect the inter-relationship between human systems and non-human living systems seeking adaptive advantage through both competition and cooperation. This model of the noosphere is both scientifically “literate” and congruent with process approaches to ecology that emphasise the interplay of noetic systems and biosemiosis.

The noosphere model also makes a clear connection with process ecological models which focus on the stability of ecological systems through exchanges of energy and information. For example, Robert Ulanowicz describes a minimal model of an autopoietic (self-catalysing) ecological system as comprising links between three species each of which reinforces downstream reactions thus increasing the stability and energy of the whole system, while passing information upstream. Ulanowicz describes this as an example of centrality, meaning that each stage reinforces the integrity and increases the energy of the whole system. Ulanowicz's language here recalls Teilhard's remarks that an increase in complexity is associated with additional radial or centripetal energy. Ulanowicz also notes a connection with Bergson, pointing out the link between centrality and “striving,” and argues that this is a prerequisite for ecological adaptation. Where Teilhard and Bergson use centrality to refer to the evolutionary impetus, Ulanowicz extends the concept by applying

it to an ecological system, simultaneously explaining the stability of a system and proposing a mechanism for the emergence of novelty.³⁹

Two important observations are, firstly, that autocatalytic processes not only contribute to the stability of ecological systems but also enable a system to develop in novel ways in response to chance natural events. Secondly, autocatalysis enables a system to influence its own structure in relation with other systems or processes.⁴⁰ Observation confirms that autocatalytic systems tend to converge on a “coherence domain,” in which all participants are contributing towards and receiving benefits from the stability of the whole structure. This is sustained by information flows throughout the system, comprising semiotic elements of signification and interpretation using stimuli such as touch, light or olfaction. Effective biosemiotic systems are observed to be rapid in relation to the “primary reward lag.”⁴¹ For the purposes of my argument, it can be concluded that Ulanowicz establishes the noetic basis of ecological systems, both in relation to internal feedback and creative response to external stimuli. This is largely affirming of Teilhard’s proposal for radial energy and the “within” as the basis of evolutionary change, but presents a more precise picture of these concepts for the more complex reality of ecological systems.

The primary focus of concern for ecotheology is not a simple ecological system but the “mixed economy” of human and non-human populations. Within such systems, human activity may not only cause changes in external conditions such as temperature, water quality or habitat, but also interrupt established autocatalytic processes, for example by reducing one of the participating populations, or by introducing another population that catalyses a process more effectively. Thus, in relation to the dynamics of ecological processes, the noosphere perspective emphasises the importance of understanding the interaction between natural and human systems, and of learning to value natural systems for their own sake and living in a way that limits the footprint of human activity.

The extended noosphere model following Vernadsky is thus congruent with the emerging picture of the more-than-human ecological system in which the biosemiotic feedback network responsible for stability and novel responses to changed environmental circumstances is impacted by human activity. Using this model, human cultural systems that ascribe differential

39 Robert E. Ulanowicz, “Process Ecology: Stepping Stones to Biosemiosis,” *Zygon* 45 (2010): 391-407.

40 *Ibid.*, 401.

41 *Ibid.*, 404.

value, such as economics, politics, art and religion, may all be described as semiotic systems. Thus the noosphere may be thought of as an interchange in which the semiosis of natural systems is subject to interference from that of human systems. As a simple example, current economic systems generally ascribe the cost of producing a good or service without reference to damage to environmental systems such as groundwater or habitat, and because price signals attach no value to these there is no disincentive to exploitation despite the fact that this reduces the health of the entire ecological system within which human life is also bound.

Noosphere and wisdom

The extension of the noosphere to include the total interaction of both human and non-human noetic systems maintains Teilhard's original commitment to non-dualism while providing a conceptual space that is congruent with recent scientific approaches. However we must now consider whether it is theologically coherent, and more particularly whether it offers a framework for the articulation of a distinctively Christian hope for the renewal of the earth. More specifically, is it possible to make theological sense out of Teilhard's claim of convergence on Christ-Omega, and to express it coherently within the noosphere model that insists on the inseparability of human life from its created context? I will argue below that the extended noosphere model makes a cogent connection with Wisdom theology, and points to the reframing of Teilhard's notion of convergence in terms of the ancient connection of the doctrines of creation and Incarnation.

Although Teilhard does not employ Wisdom terminology, his ontological grounding of all created entities in Christ echoes the linking in early Christian neo-Platonism of created existence with participation in the divine ideas in Christ. Similarly the noosphere reveals the connection between human life and the divine Word as the self-expression and Wisdom of God. In the same way that Hebrew and Hellenistic Wisdom theologies link human and divine wisdom, so the noosphere represents the quest for wisdom in human life as participation in divine Wisdom.

As noted above, intersubjectivity in the noosphere may lead to positive outcomes while failure to attend to non-human elements can damage the whole system. At the heart of the Wisdom tradition in the Hebrew Bible is a similar emphasis on relationality and openness to the non-human creation. This emphasis on humility, the respect of the natural world and openness to learning are key to understanding the noosphere as a site of potential harmony.

One important parallel with the Wisdom tradition is the warning in the Hebrew Bible against the dangerous similarity of Wisdom and Folly. The key to this is the recognition that the noosphere, as the space in which human and non-human voices intersect, can be a site either of intersubjectivity or oppression. In Proverbs chapter 9, the personified Lady Wisdom offers a feast and calls to the simple to enter her house and eat and drink: "Lay aside immaturity and live, and walk in the way of insight" (Proverbs 9:6). Later in the same chapter, Lady Folly offers a feast and calls to the simple to enter her house and eat and drink: "Stolen water is sweet, and bread eaten in secret is pleasant" (Proverbs 9:17). Although the allure of Lady Folly is deceptively similar to that of Wisdom, the good she apparently offers is spurious and leads not to life but to death. Folly's invitation appears to put within human grasp what is desired, but it turns out to be disordered and unsustainable.

The implications of this for the noosphere are, firstly, that the power of human intellect and technology is also the point of greatest danger. Wisdom is holistic, deriving its lessons from the humble study of that which is small and insignificant (*e.g.*, Job 12:7-8, Proverbs 30:24-28), and testing the truth of its intuitions by whether they are relational and hospitable (Sirach 18:13). The practical lesson is that despite its power and subtlety, human technology has led to the unsustainable exploitation of the natural world to the point of posing an existential risk not only to the non-human world but to human civilisation itself. The Hebrew wisdom tradition serves as a reminder that self-serving cleverness collapses all too easily into folly.

A further point is that the noosphere places humanity in the same relation to the natural world as the Wisdom or incarnate Word of God. As Celia Deane-Drummond remarks, Biblical wisdom is what aligns human intention and action with God's intention. In the New Testament, the Wisdom theme is further deepened by the understanding that it includes suffering, and thus becomes the wisdom of the cross.⁴² Thus, wisdom includes identification with the suffering of others, or as Deane-Drummond expresses it, a spirituality that is not afraid to face weakness, suffering and evil.⁴³ Reflecting on Paul's exposition of the wisdom of Christ crucified in 1 Corinthians 1:18-25, Deane-Drummond notes in particular God's priority for the "foolish" and the "weak" in order to humble those whom the world considers wise.⁴⁴ In relation to the noosphere, where human discourses of value and meaning

42 C. Deane-Drummond, *Wonder and Wisdom: Conversations in Science, Spirituality and Theology* (Philadelphia: Templeton Foundation Press, 2006), 89.

43 *Ibid.*, 113.

44 *Ibid.*, 118.

impact the biosphere, this suggests the need to extend the Wisdom theology of relationality and humility to an identification with the vulnerability of the natural world.

The potential for this may be demonstrated by reference to the work of Martin Buber, who explores the implications of encountering the Other not as an object but as a subject. I noted above some ways in which ecological systems depend on biosemiosis or networks of communication between populations within an ecology. This is analogous to human informational systems, and suggests the need for a sensitive awareness of the ways in which human systems of value and meaning impact on non-human ecological systems. Given the emphasis of the noosphere on systems of communication this perspective emphasises that the root cause of environmental damage is human objectification of the natural world.

The practice of intersubjectivity is crucial both to sustaining both natural systems and human life within the context of a more-than-human ecology. To put it simply, when human systems of allocating value build in a view of the non-human as object, then humanity becomes deaf to the communication of the natural world. That is, the objectification of non-human systems and creatures leads to a view both that they are entirely instrumental to human purposes, and that they lack agency, being passive effects subject to larger environmental factors and human choices. If we assume non-human life is dumb then we become deaf to what it is telling us, to our own detriment.

The alternative possibility, of human relating to the non-human world as a responsive subject, is advanced by Martin Buber in his seminal work, *I and Thou*.⁴⁵ For Buber a true meeting between subjects as “I and thou” is spontaneous and reciprocal, the “essential act of pure relationship in three dimensions” that empowers both parties.⁴⁶ Buber believes that relationships which eschew power over the other can also occur between human and non-human subjects so that one may be open and present to the unique self of, in his example, a tree. Buber remarks, “the tree is no impression, no play of my imagination, no aspect of a mood; it confronts me bodily and has to deal with me as I must deal with it—only differently. One should not try to dilute the meaning of the relation: relation is reciprocity.”⁴⁷

If this is the relationality that characterises the noosphere, then the reification of human awareness that Teilhard proposes in his original model

45 Martin Buber and Walter Kaufmann, *I and Thou: A New Translation with a prologue “I and You” and Notes* (Clark, 1970).

46 Kenneth Kramer and Mechthild Gawlick, *Martin Buber’s I and Thou: Practicing Living Dialogue*, Kindle edn (New York: Paulist Press, 2003), loc. 815.

47 Buber and Kaufmann, *I and Thou*, 58.

may be better conceptualised as a lived awareness of interdependence and intersubjectivity. A true intersubjectivity, in which human systems of meaning and value are opened to listening and involvement with the conversation of the natural world, or an “I and Thou” relationship with nature, would reorganise the noosphere so that one part (the human) was no longer deaf to the communication of the whole. This would inevitably require repentance and lead to reconciliation, as the natural world bears witness to the suffering caused by humanity’s exploitation and mismanagement. Such an intersubjectivity can be realised through a fundamental reconsideration of what it means to be human, and of how human values and concerns intersect with those of the non-human world. This is an extension of the wisdom of the cross proposed by Deane-Drummond, who as noted above suggests the need for an intentional openness to the vulnerability and suffering of the Other. Alternatively, as Denis Edwards proposes, Buber’s model of intersubjectivity describes the same relational mutuality that is at the heart of the Trinity.⁴⁸ This suggests that relations within the noosphere may be based on the inner-trinitarian relations, and offers a more theologically coherent way of understanding Teilhard’s idea of convergence in terms of the incarnation of the inner-trinitarian relations of love.

Eschatology and the noosphere

In reframing Teilhard’s notion of convergence in terms of Incarnation we enter the realm of eschatology as the consideration not of that which is ending but of that which is restored. This theological perspective poses the question: does the resurrection of Christ provide sufficient warrant for the renewal of the earth? The extension of Teilhard’s Christology and doctrine of creation has provided the framework for an ecotheology that understands the ecological hope of creation restored in terms of Incarnation. To put it more simply, instead of leaving creation for Christ (as Teilhard understood it), we encounter Christ as the new creation. But the Christ that Teilhard envisaged as the centre and the destiny of creation is the crucified and risen Christ.

In his consideration of eschatology, Jürgen Moltmann notes the twin dangers either of reducing eschatology to future history (Schweizer), or abandoning history for an “eschatology” of the present moment (Barth). Moltmann notes that the doctrine of “last things,” in order to be fully Christian, must not be content to speculate about “the end” because it is fundamentally about the

48 Denis Edwards, *Jesus the Wisdom of God: An Ecological Theology* (New York: Orbis Books, 1995), 105.

new creation of all things. Commenting that the basis of Christian hope in the future is always “the remembered hope” of the crucified and resurrected Christ, Moltmann insists that the eschatological claim that the future is in the hands of God is also the claim that “the end will become the beginning, and the true creation is still to come.”⁴⁹

Moltmann recommends an Advent-like expectation of a future as divine gift, based on the history of God’s faithfulness experienced by God’s people. The *eschaton*, he claims, “is neither the future of time nor timeless eternity” but is fundamentally the *novum*, God’s new thing that transforms time. In the Old Testament God’s longed-for salvation restores that which has been lost in a way that transcends Israel’s nostalgic memory for the past. Similarly, in the New Testament the *novum ultimum* is the resurrected Christ who does not simply fulfil but transcends the promises of the past. Yet while the eschatological *novum* is radically unprecedented and transforming, it “creates its own continuity, since it does not annihilate the old but gathers it up and creates it anew.”⁵⁰ Thus, eschatology can be neither a “report of future history” nor an extrapolation from history but must be an anticipation “of history’s future in history’s midst” made possible and necessary by the resurrection of Jesus Christ.⁵¹

Moltmann notes the disagreement between modern interpreters who suggest the earth is annihilated in the *eschaton* (based on passages such as 2 Peter 3 and Revelation 20–21) and those who believe it is transformed. Moltmann notes that transformation was the unanimous view following Irenaeus, and continues to be held in modern Catholic dogmatics. Within the Reformed tradition, 17th century Lutheranism developed the doctrine of the annihilation of creation, while Calvinism followed the classical doctrine of transformation. Moltmann critiques both perspectives, finding of *annihilatio mundi* that this doctrine is actually grounded in the anticipated transformation of this world into a new creation—and of *transformatio mundi* that the anticipated transformation must be so fundamental that God’s very relationship to the world is altered in the new creation. Ultimately, the alternatives of *annihilatio mundi* and *transformatio mundi* “belong together and are mutually complementary.”⁵² That is, if the old creation passes away then the “new creation” is in some sense still continuous with it. Conversely, if the earth is transformed into a new creation, then it has become radically

49 Jürgen Moltmann, *The Coming of God: Christian Eschatology* (Minneapolis: Fortress, 1996), x–xi.

50 *Ibid.*, 26–29.

51 Jürgen Moltmann, *The Future of Creation: Collected Essays* (Philadelphia: Fortress, 2007), 48.

52 Moltmann, *The Coming of God*, 268–74.

other. Perhaps the relationship of the old creation to the new can only be adequately expressed by maintaining the tension between *annihilatio* and *transformatio*. A similar conclusion is reached by Douglas Moo based on the examination of eschatological expectation in Old Testament texts that always include the promises of blessing exemplified in the fruitfulness of the land, and in New Testament writings that begin from the perception that the resurrection of Jesus is Israel's "true return from exile." Moo notes that key New Testament texts such as Romans 8:19-20 and Colossians 1:20 allude to the prophetic expectation in passages such as Isaiah 24–27 that the whole creation that has been affected by human sinfulness will also share in the redemption of humankind.⁵³

The extended model of the noosphere similarly emphasises that human life is not only inextricably relational, but also necessarily embedded within its created and more-than-human context. Thus, the "end" for an ecotheological eschatology must focus on the hope for a more-than-human ecology on this earth. Moltmann's review of the range of eschatological thought is a helpful reminder that the context for expectation is always the anticipation of "history's future" from within history; and the noosphere model provides a locus for this. For Moltmann, eschatological expectation is necessarily connected with the locus of God's faithful presence in history, which means the eschatological focus is articulated within a historically specific context. The noosphere model thus contextualises eschatological expectation within the more-than-human ecology as it stands at the current moment in history.

In terms of the noosphere, eschatological hope is the claim that Christ as the centre of created reality and its eternal valuation is also the basis of the Advent hope that relations within the noosphere may be so transformed as to be a "new creation." Such a transformation may be considered the completion of Teilhard's extension of the doctrine of the Incarnation, as created reality becomes an icon of the Trinity and embodies the trinitarian relations. As the *novum adventus*, this eschatological claim qualifies Teilhard's own statement of universal convergence on Christ-Omega as that which is both God's new thing and the coming to fulfilment of what is already accomplished in the resurrection. Whereas the noosphere model suggests a human praxis of intersubjectivity, or the humility of conversation with the earth, the eschatological perspective is a reminder that the restoration of all things is both a future hope and the outworking of God's remembered faithfulness.

53 Douglas J. Moo, "Eschatology and Environmental Ethics: On the Importance of Biblical Theology to Creation Care," in *Keeping God's Earth: The Global Environment in Biblical Perspective* (Downers Grove, IL; Nottingham, England: IVP Academic: Apollos, 2010), 26-36.

Conclusion

The noosphere is a working model of the more-than-human ecology that identifies the topography of creation as Christocentric and its process as incarnational. Emerging from Teilhard's original emphasis on the inseparability of matter and spirit, the noosphere suggests a soteriological focus on creation itself as the locus of God's activity. Teilhard's evolutionary axiom of complexity-consciousness foreshadows the focus of contemporary research in evolutionary science and ecology on noetic systems and also undergirds the connection the extended noosphere model makes with a Wisdom theology. Teilhard's thought is limited by its unsystematic nature and lack of a rigorous trinitarian framework. More particularly, his cosmic Christ is insufficiently connected with the historical figure of Jesus of Nazareth. An important avenue for addressing this is to further develop the connection between noetic relationships in the noosphere and Wisdom. More generally, the noosphere model needs to be developed within a trinitarian framework, and this in particular may strengthen the eschatological claim of convergence which may be better understood in terms of the incarnation of the inner-trinitarian relations of love.

A central value of the noosphere is that it provides a conceptual space for the conversation between theology and ecological science. In focussing on noetic ecological systems and their interaction with human systems of value and meaning, the noosphere suggests a human praxis of deep listening to the voice of the non-human creation, and the humility of relating to the non-human as a subject. However viewed from an eschatological perspective the noosphere carries the reminder that intersubjectivity as the incarnation of divine love is ultimately the remembered hope of resurrection.

Evan Pederick is a parish priest in the Diocese of Perth and a member of the Anglican EcoCare Commission. He is completing his PhD thesis entitled "Christ and creation: a model for ecotheology" which explores the parallel between the evolutionary Christology of Teilhard de Chardin and the trinitarian theology of St Bonaventure.

References

- Barbour, Ian G. "Teilhard's Process Metaphysics." *Journal of Religion* 49 (1969): 136-59.
- Bostock, Gerald. "Origen's Doctrine of Creation." *Expository Times* 118 (2007): 222-27.
- Bowler, Peter J. *The Non-Darwinian Revolution: Reinterpreting a Historical Myth*. Baltimore: Johns Hopkins University Press, 1988.
- Buber, Martin, and Walter Kaufmann. *I and Thou: A New Translation with a prologue "I and You" and Notes*. Clark, 1970.
- Corning, Peter A. "Evolution 'on Purpose': How Behaviour Has Shaped the Evolutionary Process."

- Biological Journal of the Linnean Society* 112 (2014): 242-60.
- Cousins, Ewert. *Bonaventure and the Coincidence of Opposites*. Chicago: Franciscan Herald Press, 1978.
- Deane-Drummond, C. *Christ and Evolution: Wonder and Wisdom*. Minneapolis: Fortress Press, 2009.
- . *Wonder and Wisdom: Conversations in Science, Spirituality and Theology*. Philadelphia: Templeton Foundation Press, 2006.
- DiFrisco, James. "Élan Vital Revisited: Bergson and the Thermodynamic Paradigm." *The Southern Journal of Philosophy* 53 (2015): 54-73.
- Edwards, Denis. *Jesus the Wisdom of God: An Ecological Theology*. New York: Orbis Books, 1995.
- Pope Francis. "Laudato Si' [Encyclical Letter of Pope Francis on Care for Our Common Home]," 24 May 2015. http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.
- Gilson, Etienne. *From Aristotle to Darwin and Back Again: A Journey in Final Causality, Species, and Evolution*. Ignatius Press, 2009.
- King, Ursula. *Spirit of Fire: The Life and Vision of Teilhard de Chardin*. Maryknoll, NY: Orbis Books, 2000.
- Kramer, Kenneth, and Mechthild Gawlick. *Martin Buber's I and Thou: Practicing Living Dialogue*. Kindle. New York: Paulist Press, 2003.
- Lyons, James A. *The Cosmic Christ in Origen and Teilhard de Chardin: A Comparative Study*. New York: Oxford University Press, 1982.
- Maloney, George A. *The Cosmic Christ: From Paul to Teilhard*. New York: Sheed and Ward, 1968.
- Moltmann, Jürgen. *The Coming of God: Christian Eschatology*. Minneapolis: Fortress Press, 1996.
- . *The Future of Creation: Collected Essays*. Philadelphia: Fortress Press, 2007.
- Moo, Douglas J. "Eschatology and Environmental Ethics: On the Importance of Biblical Theology to Creation Care." In *Keeping God's Earth: The Global Environment in Biblical Perspective*, 23-43. Downers Grove, IL; Nottingham, England: IVP Academic; Apollos, 2010.
- Mooney, Christopher F. *Teilhard de Chardin and the Mystery of Christ*. London: Collins, 1966.
- Pius IX. "Dogmatic Constitution of the First Vatican Council (1869-1870)." St Peter's Basilica, Rome, 1870. <http://www.ewtn.com/library/COUNCILS/V1.htm>.
- Samson, Paul R., and David Pitt. *The Biosphere and Noosphere Reader: Global Environment, Society and Change*. London; New York: Routledge, 1999.
- Semenyuk, E. P. "Role of Informatics in the Ecologization of Society." *Scientific and Technical Information Processing* 39 (2012): 1-12.
- Shapiro, James Alan. *Evolution: A View from the 21st Century*. Kindle edn. Upper Saddle River, NJ: FT Press Science, 2013.
- Teilhard de Chardin, Pierre. *Activation of Energy*. New York: Harcourt Brace, 1970.
- . *Christianity and Evolution*. London: Collins, 1971.
- . *Human Energy*. New York: Harcourt Brace, 1969.
- . *The Appearance of Man*. Translated by J. M. Cohen. London: Collins, 1965.
- . *The Divine Milieu*. London: Collins, 1968.
- . *The Heart of Matter*. San Diego: Harvest, 1974.
- . *The Making of a Mind: Letters from a Soldier-Priest 1914-1919*. New York: Harper & Row, 1961.
- . *The Phenomenon of Man*. London: Collins, 1970.
- Ulanowicz, Robert E. "Process Ecology: Stepping Stones to Biosemiosis." *Zygon* 45 (2010): 391-407.
- Viney, Donald. "Teilhard and Process Philosophy Redux." *Process Studies* 35 (2006): 12-42.

The “priesthood of all believers”

Human beings and creation from an Orthodox perspective

Gregory Seach

This paper examines the possibilities for enriching ecotheology by a study of some writings from an Orthodox perspective, particularly the theology of John D. Zizioulas. It does this through the frame of “the priesthood of all believers” and, seeing all Christian priesthood as having its origin and foundation in Jesus Christ, it explores what the Incarnation indicates of God’s commitment to the creation. From there it argues that the calling of all Christian people is to enter fully into a relationship of communion and care for all the creation that is Christologically, Pneumatologically and, ultimately, Trinitarian derived, driven and shaped.

In the opening pages of *Laudato Si’*, Pope Francis mentions, as a “striking example” of the expressions of deep concern about the environment by those outside the Catholic Church “the statements made by the beloved Ecumenical Patriarch Bartholomew.”¹ Indeed, while all Christians should be grateful for the efforts of Pope Francis in his encyclical, it must also be recognised that, for at least the past twenty years, Patriarch Bartholomew—the so-called “Green Patriarch”—has been writing about and advocating what we might call “ecotheology.” I suspect, however, that His All Holiness might question the “eco” at the start of that adjectival phrase: for him, theology *must*, if it is to be true to its purpose, speak of God’s purpose for and relations and dealing with, *all* of God’s creation. For Patriarch Bartholomew, that remarkable verse from the letter to the Colossians: “through [Christ] God was pleased to

1 Pope Francis, *Laudato Si’: On Care for our Common Home* (Vatican City: Editrice Vaticana, 2015), 14.

reconcile *all things* to [God's]self, whether on earth or in heaven, by making peace through the blood of [Christ's] cross" (Colossians 1:20) means what it says. And the Greek, in which the Patriarch and many Orthodox still read the New Testament, makes the full scope of this reconciliation abundantly clear: the word used is Πάντα, "all things" (*neuter plural*): *not all people*. (It is not coincidental that that word Πάντα occurs five times in the course of as many verses in the opening chapter of Colossians.) And, as the verse makes clear, this happens with all things "whether on earth or in heaven": the reconciliation spoken of is not confined to this globe; it involves the whole cosmos, the whole created order.

The focus of this paper is to present an Orthodox perspective on the relationship between human beings and the creation in which we live. *An* (not *the*) Orthodox perspective, because what follows will focus on insights for ecotheology from *one* Orthodox theologian: Metropolitan John of Pergamon—John D. Zizioulas. There are many points in Zizioulas' theology—theology which draws deeply on Orthodox tradition—that could be called upon to provide insights and assistance in framing a Christian ecological theology. The focus in what follows, however, will be on one Christian trope: "the priesthood of all believers." This is because it provides helpful possibilities not only to reevaluate our understanding of "priesthood," but to see some equally—perhaps more—remarkable ecological ramifications: ramifications, that is, for the whole of God's creation, the "all things ... whether on earth or in heaven" of which the letter to the Colossians speaks.

Christological basis of priesthood

John Zizioulas argues consistently that "any approach to the ministry of the Church and of ordination to this ministry should start from a Christological standpoint."² He points out that it is no accident that, in the New Testament, there is no "ministerial title known to the primitive Church that is not [initially] attributed to Christ."³ Any ministry the Church offers is Christ's ministry; and the Church, as the Body of Christ, continues to carry out the ministries of her Lord. As Zizioulas puts it:

2 John D. Zizioulas, "Ordination and Communion" in *The One and the Many: Studies on God, Man, the Church and the World Today*, ed. Gregory Edwards (Alhambra CA: Sebastian Press, 2010), 181.

3 *Ibid.* This has been a continuing theme in Zizioulas's theology since his doctoral thesis, now published as *Eucharist, Bishop, Church: The Unity of the Church in the Divine Eucharist and the Bishop in the First Three Centuries*, trans. Elizabeth Theokritoff (Brookline, Mass.: Holy Cross Orthodox Press, 2001).

we are bound to view every ministry in the Church not as existing *parallel* to that of Christ but as being *identical* with it. Christ did not simply institute certain forms of ministry that can now be conceived in themselves; He rather intended that the Church, through her various ministries, reflect and realize in the world his own ministry [emphasis mine] until the *Parousia*. In this sense, the ministry of the Church is basically a projection of Christ's presence in the world, not a mere fulfilment of a commandment given to the Church by Christ.⁴

That being said, there is one title given to Jesus in Paul which is not, usually, considered a “priestly title”: “the second Adam.” Yet the chief burden of this paper is that it should be seen as such: as an essential element of Christ's priestly rôle.

Human beings were created, Zizioulas argues, to be “priests of creation”:⁵ it was our task, being created in the image and likeness of God, yet at the same time “formed of the dust of the earth”—the “stuff” of creation (recall, in this context, the Hebrew meaning of *Adam*: from earth)—to “offer up” creation to the Creator. Humans were called upon to unite all created matter in the worship of its and our Creator. In this way, our existence in the world was, by its very nature to be priestly and ministerial: our intercessory, offertory and laudatory rôle was to bring all creation to offer the praise, thanksgiving and worship due to the Triune God.

Human beings, Christian faith tells us, chose *not* to do this. Instead, at least in the terminology of Genesis 3, we chose to “be like God.” Thereby we attempted to refer all creation to ourselves. Zizioulas puts this well:

Adam succumbed to the temptation to declare himself “God,” and set out to redirect creation from the uncreated God to his own, created self. In deciding that everything should refer to him, Adam's fall was also the fall of creation.

... The first consequence of this was that humans came to believe that we could rule creation as though we had created it ourselves. We set nature against ourselves and created a conflict, and, because we were no longer in harmony with it, nature became a cause of misery to us. Persons were set *against* nature, so we could survive in this world only by struggling against it.⁶

4 Zizioulas, “Ordination and Communion,” 182.

5 *Ibid.*

6 John D. Zizioulas, *Lectures in Christian Dogmatics*, ed. Douglas Knight (London: T&T Clark, 2008), 98. Significantly, here Zizioulas completely bypasses some of the issues that concerned Western theology about “Eve” as the one who first succumbed to this temptation. Eve is not mentioned in Zizioulas' thinking on this—not because women are insignificant, but because the consequences he explores concern all humanity, and are a result of the sin of

This state was, of course, not God's desire. Therefore, the One through and for whom all things were created—the eternal Son—became fully human, became part of creation, as well as remaining uncreated. This happened, in the definition of Chalcedon, without confusion or separation. Thus Jesus exists, it might be said, without the tension or confusion, the “struggle for supremacy,” the conflict that mars human attempts at determining how we relate to the created world of which we are part. Jesus was able to do and did precisely what human beings—the first Adam—refused. Firstly, to live in such harmony with Creation that “even the winds and the sea obey him” (see Mark 7:3 and //s);⁷ and that “the stones would shout out” his praise (see Luke 19:40). Secondly, to “offer up” creation to the Creator; such as when he takes bread and fish and, “when he had given thanks,” feeds a multitude (John 6:11).⁸ Thirdly, and most importantly, by and in his own creatureliness, he offers obedience to the Father, and by surrendering himself to the fate of all fallen creation—that is, death—he conquers death by death. It is in the very act of doing this, of willingly accepting the “fate” of all created things—mortality, death—that Jesus achieves the reconciliation of “all things” to God. In short, the communion God planned would be shared between humanity and all creation, and between all creation (through humanity as *priests*, in the sense of mediator and intercessor—rôles now seen solely in “our only mediator and advocate,” as Cranmer puts it) and our Creator, such that all would live eternally through their communion with the Undying, Uncreated God—that communion is achieved by the second Adam.

Thus, in and by his incarnation, Jesus performs a priestly rôle: he is “our great high priest,” but in a way that, perhaps, extends the way we usually think of that title. If what Zizioulas argues—that the Church has no ministry which is not Christ's ministry—then it follows that this is, *ipso facto*, a ministry of Christ's body, the Church (and therefore of all believers), until the Parousia. Or, to put it another way, until that time when the eternal communion between humanity and creation, and all creation and the Creator, which was God's desire for the cosmos, will be fulfilled. Until the eschaton, however, all

all humans—male and female. “Adam” (the first) is used precisely because this allows thought and reflection on the “second Adam,” the Christ who represents all humanity.

- 7 It is worth adding, however, that the “obedience” displayed by the forces of nature in the “calming of the storm” is consonant and consistent with the kenotic exercise of power that is the essential mark of Jesus' human life: it is, one might argue, a “healing” of the disorder of the elements of creation. Thus, Jesus says “Peace” to the winds and water—an invitation to them to enter the shalom of God. By doing this, Jesus clearly demonstrates the characteristic manner of the Triune God's involvement with the creation God loves.
- 8 Cf. //s (Matthew 14:19, Mark 6:41, and Luke 9:16), where the “giving thanks” is not included, but is implied in the “looked up to heaven.”

Christian people have a “priesthood,” a ministry, of care for all Creation if we are to continue the ministry that is Christ’s and in which, by baptism, we now share. Naturally, as is often said, this “ministry” includes concern for and reconciliation between one another certainly; but our concern is not just for other human beings: “it isn’t all about us,” we might say!

Pneumatological basis of priesthood

Zizioulas’s understanding of priesthood, in a characteristic Orthodox manner, is not *solely* Christological, however. While he insists a theological understanding of priesthood “should *start* from a Christological standpoint,” he also insists on a pneumatological basis if priesthood is to be fully understood. “Christ is present in the world only in and through the presence and work of the Holy Spirit,” he says, and shows that the New Testament and the Creeds suggest the Incarnation “is inconceivable ... without the work of the Spirit.”⁹ Indeed, Christ’s “ministry in the world” requires “the presence of the Holy Spirit in order to start functioning” (Luke 4:18).¹⁰ The Spirit is, as both Matthew and Luke affirm in their different ways, the One who will “come upon” Mary—as the “power of the Most High” that “overshadows” her. The same Spirit descends on Jesus at his baptism, and immediately drives him into the wilderness to be tempted (I will return to this); and, at least in Luke’s gospel, Jesus makes it clear as he begins his public ministry in his preaching that “the Spirit of the Lord is upon” him (Luke 4:18, and see also 4:16). Zizioulas rightly sees these two bases as complimentary, not competitive:

A Christologically understood ministry is possible only in the context of Pneumatology and ultimately leads to an involvement of the Trinity in it. The ministry of the Church should not be reduced to anything lower than the very acts and involvement of God in history since the very beginning.¹¹

Discussion of these Christological and pneumatological emphases—which leads to a Trinitarian understanding—raises another crucial way of recognising the ecological perspective which is, Zizioulas argues, at the very core of Christian theology. The Spirit of God, Genesis tells us, “hovered over the face of the waters” and was essential in the act of the Triune God we call “creation.” As mentioned above, the same Spirit descends as Jesus rises out of

9 Zizioulas, “Ordination and Communion,” 181.

10 *Ibid.*

11 *Ibid.*, 182.

the waters at his baptism and drives him into the wilderness. It is to this time in the wilderness that we now turn.

In the wilderness, Jesus is tempted by Satan—just as the first humans were tempted by the serpent in the Garden. What was that first temptation in Eden? The serpent asks, “Did God say . . . ?” And the serpent furthers this by saying, in effect, that God has *lied*: “You will not die, but . . . you will be like God . . .” This is the great temptation, and the first great sin. Humans decide they want to “be like God.” Humans decide that being creatures, being part of creation, is too lowly and menial. We want to “be like God.” D. H. Lawrence, in a letter to Bertrand Russell once wrote: “Stop . . . being an ego, and have the courage to be a creature.”¹² Lawrence identifies a fundamental element of fallen humanity: humans choose *not* to think of or see ourselves as “creatures,” notwithstanding the obvious fact that we are.

Now, while Zizioulas does not say so (though it seems a legitimate extension of those insights of his already highlighted), in the temptation of Jesus in the wilderness, part of what Jesus undergoes is a “recapitulation” of the temptation that occurs in Genesis 3. Jesus’ testing in the wilderness begins with the temptation to overcome the *creaturely* discomforts of hunger he experiences—“turn these stones into bread.” But that, Jesus knows, is to usurp the rôle of God. And, we might say, it would involve perverting nature—stones can’t become bread. Jesus can (as mentioned above) take bread and fish and, by invoking God’s blessing upon them, make them multiply abundantly. But Jesus does not alter the nature of an element of the Creation God calls “very good.”

Furthermore, the Devil quotes Scripture, and in a way that bears further comparison with Genesis 3. “Didn’t God *say* that if you threw yourself from the top of the temple God would send angels to hold you up?” we might hear Satan saying in another temptation. Again, Jesus refuses to usurp the place of God—to act as other than human. In his response, and throughout his life, Jesus, trusting fully in the unbroken communion he shares with the Father and the Spirit, “has the courage to be a creature”! It is unsurprising that Milton’s “sequel” to *Paradise Lost* (*Paradise Regained*) is set in and around the temptation of Christ. In that remarkable work, Milton argues that Paradise is regained for by the second Adam and, specifically, because Jesus chooses—in a remarkable anticipation of the prayer in Gethsemane—that the Father’s, not his, will be done. In short by willingly *not* “being like God,”

12 Letter of 19 February, 1916 in *The Letters of D. H. Lawrence*, Vol. II, 1913–16, ed. George J. Zytaruk and James T. Boulton (Cambridge: CUP, 1981), 547.

refusing (as the kenotic hymn in Philippians puts it), to “cling to equality with God” (see especially v. 6).

If there were time, we might explore more fully, too, that (literally) crucial episode in the life of Jesus—his Passion and Crucifixion. There human exploitation of elements of creation—wood, iron (in the form of nails), thorns—occurs. These elements of creation are twisted and distorted (exploited and abused, we might say) in order that human beings may abuse and torture another human being. We know such horrors, in a variety of forms, still occur. Yet it must also be recalled that the Church began to see, and after not very long, that the abuse of creation manifest in the crucifixion was transformed by Christ and his suffering into signs—indeed, the chief sign for us—of the reunion of creation and humanity with God.¹³

An eschatological dimension

Finally, it is worth considering another element that Zizioulas explores in his discussion of pneumatology. In so concluding, we gain a fine example of how the ministry of the ordained both is part of, and contributes to, the priesthood of all believers.

Wherever the Holy Spirit blows the immediate result is that the *eschaton* breaks through history and people are brought into *communion* with one another and with God. . . . We see this happen par excellence on the day of Pentecost as narrated in Acts 2, where the descent of the Spirit is seen as a purely eschatological event bringing “the last days” into history, and at the same time, as the creation of the community of the Church.¹⁴

This means, Zizioulas rightly argues, that

the ministry of the Church is meant precisely to be this charismatic presence of the *eschaton* in the world by way of which the world is called to repentance and embodiment into the People of God, through baptism into Christ and participation in the Banquet of the Kingdom anticipated already, here and now in the Eucharistic community.¹⁵

13 Cf. the words of the ancient hymn *Crux fidelis*: “Sweetest wood, and sweetest iron.” Those instruments of torture, precisely because a “sweetest weight is hung on” them are transfigured into instruments of salvation—created elements, again, being used by the second Adam to bring about the *communion* with God that God desires with all creation.

14 Zizioulas, “Ordination and Communion,” 182.

15 *Ibid.*

The eucharist is, as Christians often say, the eschatological banquet. In it, God's people are gathered, regardless of their differences and particularities—or perhaps we should say in light of what Zizioulas suggests, because of them. We recognise that the eucharist is—as indeed it is called—“a wonderful memorial” of Christ's passion. Again, however, in the prayer offered (the *epiclesis*), the priest also invokes the Holy Spirit—that Bringer of the eschaton. In other words, as Orthodox sisters and brothers remind us, what this liturgy also provides is a “remembering of the future.” As Christians gather around the Lord's table, we pray “Thy Kingdom come”; but we need to recognise, in a sense whereby we see by faith, that kingdom is already here.

This wonderful sacrament is also called “Holy *Communion*.” Of course, communion with the God who exists as communion, and with one another—including the saints, “the whole company of heaven,” gathered with us. Again, something more is at work. A priest or bishop takes in her hands bread—“which earth has given and human hands have made”—and wine—“fruit of the vine and work of human hands.” In other words, in “these Thy creatures of bread and wine,” as Cranmer called them, witness is given of an already established mutual working between humans and creation: a communion, for the praise and worship of the Creator of all. To put it another way, the “re-membling” at the heart of the eucharist can be seen as the opposite of “dis-membling”: the disjunction between humanity and creation is transformed into a joined offering of praise and thanksgiving. Furthermore, the Spirit transforms those into elements which, in a mysterious way, allow us to partake of and be made the Body of Christ. (It should be added that in a similar way, a “communion” occurs between created water and created humans in Baptism.)

In the eucharist, the ordained, the priest or bishop, shows and enacts the priesthood of all believers. She does so in a present that is also the eschaton. And she does so in the presence of the laity, who must be present to utter their “Amen” (at least, in Orthodox and Anglican understandings of the eucharist). Following and continuing the ministry of Christ, the second Adam, we pray the same Spirit, who hovered over the waters at the beginning of Creation, to transform and hallow elements of creation that we no longer exploit, but use in communal worship of God. We pray for that same Spirit to re-create and restore communion between humans, between humans and creation, and between all creation and our Creator. This is the priesthood to which *all* believers are called; it is a ministry God desires all humans to fulfil, because it is a vital element of the ministry of the second Adam. Full humanity is made manifest in Christ. The possibility for human ministry, human priesthood is achieved in and by Christ. And that same ministry or “priesthood” is made

possible for, by and in us, by the life-giving Spirit, to the glory of the eternal Father.

The Reverend Dr Gregory Seach was appointed the Warden of Wollaston Theological College in January 2015. As a result, he is responsible for all Theological Education, Formation and Training, for lay and ordained people, in the Diocese of Perth. He teaches theology in the College and, when requested, at Murdoch University. Before coming to Perth, he was Dean and Fellow of Clare College, Cambridge, and an Adjunct Lecturer in the Faculty of Divinity in the University of Cambridge. Originally from Sydney, he trained for ordination at Trinity College Theological School, Melbourne, before completing a PhD in Theology and Literature in Cambridge.

References

- Pope Francis. *Laudato Si': On Care for our Common Home* (Vatican City: Editrice Vaticana, 2015).
- Lawrence, D. H. *Collected Letters, Vol II, 1913–16*. Edited by George J. Zytaruk and James T. Boulton (Cambridge: CUP, 1981).
- Zizioulas, John D. *Eucharist, Bishop, Church: The Unity of the Church in the Divine Eucharist and the Bishop in the First Three Centuries*. Translated by Elizabeth Theokritoff (Brookline, Mass.: Holy Cross Orthodox Press, 2001).
- . *Lectures in Christian Dogmatics*. Edited by Douglas Knight (London: T&T Clark, 2008).
- . *The One and the Many: Studies on God, Man, the Church and the World Today*. Edited by Gregory Edwards (Alhambra, CA: Sebastian Press, 2010).

Where is “... and earth”?

*Learning to preach in the Anthropocene*¹

Graeme Garrett

This paper explores the challenge of preaching in our times under three headings. (1) Context of preaching. One of the most significant aspects of our contemporary preaching context is signalled by the term *Anthropocene*, a word coined recently by scientists to describe the fact that human activity is now influencing (often detrimentally) the fundamental dynamics of planet Earth: water, air, soil, plants, animals. For a faith that acknowledges God as creator of heaven and earth, this cannot be ignored. (2) Conditions of preaching. We are familiar with the theological conditions of proclamation. For preaching to be authentic, God must exist. And God must speak a word into our situation that is trustworthy. And God must enliven our words of witness by the grace of God’s Spirit. But there are also anthropological conditions. Preaching requires human voices to proclaim and human ears to hear. And this presupposes our human bodies as gifts of God. But our bodies are the outcome of billions of years of evolution of Earth and indeed of the Universe. As preachers and hearers of the word, we humans are not separate from this whole earthly history and development of life. (3) Content of preaching. Our ecological situation has implications for the content of proclamation. Two points are discussed. First our witness to the reality of God. How does God view this Earth that God has created? The wonderful speech of Yahweh to the anguished Job (Job 38–39) gives us a window into God’s desires and intentions concerning Earth and its other-than-human creatures. Second our understanding of ourselves. This is explored through a renewed examination of Luther’s understanding of sin as *Incurvatus in se*, i.e., the curving in of the self upon itself.

1 An earlier version of this paper appeared in *Baptist Identity into the 21st century: Essays in honour of Ken Manley*, ed. Frank Rees (Whitley College, Melbourne, 2016), 110–23 and is used here with permission.

It is a privilege to share in this conversation about faith and the environment in response to the remarkable encyclical of Pope Francis, *Laudato Si'*. This is the first clear, careful, detailed and compassionate articulation of the central problem of climate change from a world leader of our time. Other leaders have sidled up to the issue and made various public and personal statements about it, but Pope Francis is the first to say openly and in detail what is really at stake. This is a global problem. This is serious. And this concerns every one of us. "Faced as we are with global environmental deterioration," he says, "I wish to address every person living on this planet ... about our common home" (para 3). Here we will focus particularly on what it means for theology, for faith, for Christian discipleship.

I have been an ordained minister in the Church for more than 50 years, 27 of them as a Baptist clergyman, the rest as an Anglican priest. The task of trying to proclaim the gospel of Jesus Christ in our times has always challenged me; enlivening, intriguing, and often defeating me. In response to the invitation to contribute to this symposium, I decided to consider the task of preaching in the light of Pope Francis's call. What does it mean to preach faithfully in times like these?

On becoming an Anglican, I was struck by the way the Eucharistic liturgy places the sermon in the context of worship. In the section of the liturgy headed, "The Ministry of the Word," the scriptures are read: Old Testament, Psalm, New Testament Epistle, and finally the Gospel. Then follows the sermon, clearly intended to be an exposition of the scriptures just read. Then the creed is recited. This is a brilliant move. Here stands unavoidably a built-in mechanism of theological quality control. Whatever that jackass in the pulpit just said to you, *this* is what we actually believe and seek to proclaim!

And so I decided to have a go at applying this quality control not to a single sermon, but across a life's ministry. The result was salutary. I discovered the weight of my preaching concentrates in paragraphs two and three of the creed: the parts that have to do with christology ("We believe in one Lord, Jesus Christ, the only Son of God ..." *etc.*) and pneumatology ("We believe in the Holy Spirit, the Lord, the giver of life ..." *etc.*). There are lots of sermons on the incarnation, life, words, actions, suffering, death, resurrection, ascension and anticipated return of Jesus Christ. Lots more on the gifts and presence of the Spirit; on the life of faith, hope and love; on the mission of the church; on baptism and the Eucharist; on the struggle for justice; on human suffering and death; on the hope for life eternal. But, judged by the liturgy test, my life's preaching has been weak, perhaps disastrously so, in relation to paragraph one. "We believe in one God, the Father, the almighty, maker of heaven and

earth ...” Yes, God as Father is represented. And heaven, God’s dwelling place, finds room. But then, silence. Where is “... and earth” in my preaching?

I turned up a couple of late sermons written for “Creation Sunday,” found some scattered references to “lilies of the field” and “birds of the air” arising from reflections on the Sermon on the Mount. There was a piece on Psalm 19:1, “the heavens declare the glory of God,” with some stuff about the beauty of the Milky Way at night, and a quote from Gerard Manley Hopkins: “the world is charged with the grandeur of God.” Sermons on the creation stories of Genesis 1–2 appear. But predictably they deal with Genesis 1:26–31, the story of the creation of *humankind* in “God’s image and likeness.” No preaching of mine recalls any part of the extraordinary words of Yahweh in Job 38–41, or takes off from Psalms 8, 65, 95, 104 or 148. Jeremiah 4 might as well not have been written. Homiletic silence greets me in relation to texts on the “cosmic Christ” in Colossians 1. And the extraordinary scenes played out in Revelation 16 lie untouched. The prologue to the Gospel of John gets plenty of attention. But not a word on verse 3: “All things came into being through him (Christ), and without him not one thing came into being” (John 1:3). It’s scary.

The context of preaching

Good preaching is always contextual. This is one reason why we can’t simply replicate in our pulpits the sermons of great preachers from the past. St Augustine may be pulpit eloquence personified. But he preached the gospel to people whose language, history, and culture were vastly different from our own. His words, however profound, will not find ready access to hearts shaped in the language and culture of today’s Australia. We are called to preach Christ in *our* context, as Augustine was in his. We may strive for the excellence he manifest. But that cannot be achieved by mere imitation.

And what is our context? No simple answer exists. Issues personal, local, national and international all vie for a place. And good preaching should be sensitive to them. But for all the complexity, one matter forces itself on us. The issue of this encyclical. Pope Francis writes: “Climate change is a global problem with grave implications: environmental, social, economic, political and for the distribution of goods. It represents one of the principal challenges facing humanity in our day. Its worst impact will probably be felt by developing countries in coming decades.” And he goes on: “... sadly, there is widespread indifference to such suffering, which is even now taking place throughout our world. Our lack of response to these tragedies involving our

brothers and sisters points to the loss of that sense of responsibility for our fellow men and women upon which all civil society is founded" (para 25).

Recently, scientists have coined a new term to characterise this period of earth's history: the *Anthropocene* (from *Anthropos* "human" and *cene* "new"). The term is important because it is a "strong reminder to the general public that we are now having undeniable impacts on the environment at the scale of the planet as a whole, so much so that a new geological epoch has begun."² And those impacts are, on the whole, disturbingly for the worse.

As the Pope says, the Anthropocene affects everything from politics and economics, to city planning and religion. Yet we are strangely reluctant to talk about it. Even more reluctant to act on it. The manoeuvring of our political leaders to try to avoid dealing seriously with climate change is as depressing as it is obvious. The reason is that we don't want to believe it is really happening; we don't want to acknowledge our contribution to the emissions that underlie the problem; and, most of all, we don't want to take any cut in our standard of living. Thus an "invisible forcefield of silence" hovers around the subject.³ And all of us have a vested interest in holding it firmly in place. This force field of silence affects preaching as well; my preaching at least.

But, this is *not* a silence of our sacred texts. And it is *not* a silence of our God. Jeremiah knew nothing of melting ice sheets, dying corals and rising CO₂ levels. But his words (Jeremiah 4:23-26) speak to the Anthropocene.

I looked on the earth, and lo,
it was waste and void;
and to the heavens, and they had no light.
I looked on the mountains, and lo,
they were quaking,
and all the hills moved to and fro.
I looked, and lo, there was no one at all,
and all the birds of the air had fled.
I looked, and lo, the fruitful land was a desert,
and all its cities were laid in ruins
before the Lord, before his fierce anger.

This is a vivid picture of de-creation, of the *un-making*, of the earth. It amounts to a reversal of the Genesis account of earth's emergence into being

2 The words are from the head of ANU's Climate Change Institute, Professor Will Steffen, as quoted by Joseph Stromberg in an essay, "What is the Anthropocene and are we in it?", accessed 5 January 2015, <http://www.smithsonianmag.com/science-nature>.

3 The phrase comes from George Marshall, *Don't Even Think About It: Why Our Brains Are Wired to Ignore Climate Change* (London: Bloomsbury, 2014); see review by Paul Kingsnorth, *London Review of Books*, 23 October 2014, 17.

in response to the Creator's call.⁴ In our time, Jeremiah's words cease to be a poetic figuration and become something much closer to a report of the way things are. How can I recite the words, "We believe in one God, the Father, the almighty, maker of heaven *and earth*" and yet persist in preaching with what amounts to a "stupendous capacity to ignore the very world within which our lives are sustained"?⁵ Whatever excuse might exist for earlier generations to neglect the "... and earth" of the creed, preaching in the Anthropocene must take it seriously; to do otherwise in our generation is not to preach responsibly *from* the scriptures *into* our context.

The conditions of preaching

Paul famously wrote, "faith comes from what is heard, and what is heard comes through the word of Christ." And "how are they to hear without someone to proclaim him?" (Romans 10:17, 14) This implies that preaching and saving faith in Christ are essentially linked. How? What conditions must be in place for these sentences to be true?

We don't often spell them out. But they lurk in the background nonetheless. For example, if preaching as understood by Paul is to make any kind of sense God must *exist*. In a godless world preaching is a hoax or anyway an awful mistake. And God must *speak*. A silent God is no help. It is difficult enough in our dealings with each other to know how to interpret one who deliberately falls silent or who cannot speak. What can we hope to know of the deep mystery that surrounds us on all sides, unless from the heart of that mystery a word is spoken, a sign given? And it must be *trustworthy*. If the word spoken is reneged upon, if the theological carpet is laid down and then pulled out from under our homiletic feet, so to speak, how can we preach? In the Christian tradition this trustworthy word comes in its most transparent and intimate form in the *life of Jesus*, the "Word made flesh" (John 1:14). And this Word made flesh, to which scripture bears testimony, must in turn be able to take up habitation in human speech. Christ must be in the word *proclaimed*; a real presence. Otherwise preaching is merely a report of a life once lived long ago and far away. And if preaching is this living encounter it means that God as Holy Spirit must be active in our *speaking*; and in the *hearing* of those who listen. But these are only what we might call the theological conditions of preaching. What of the anthropological conditions of preaching?

4 I owe this observation to a conversation with Professor Terry Falla of Whitley College.

5 Deborah Bird Rose, "Slowly – writing into the Anthropocene," *TEXT* Special Issue 20: Writing Creates Ecology and Ecology Creates Writing, eds. Deborah Bird Rose, Lorraine Shannon and Kim Satchell, October 2013, 2.

At the very least, preaching presupposes human bodies; bodies which speak, hear, think, feel and see. That much is evident in Paul's description. No proclamation without a voice. No hearing without an ear. But no voice and no ear without a body. And no body without the conditions under which human bodies come into being. That entails the whole history of the earth, as the Creation accounts of Genesis make clear. Human beings with their voices and ears appear right at the end of the creative process, following on and presupposing the earlier presence of day and night, land and sea, rain and wind, sun and moon, plants and animals (Genesis 1:1-31). If we place this biblical narrative within a modern evolutionary understanding of the emergence of life on earth, an astonishing picture appears. Consider just one contemporary analysis of *some* of the conditions of speech in humans.

We know that spoken language is dependent, not only on sufficient brain space to house the dictionary and grammar, but on quite specific features of the vocal apparatus (not just vocal chords, but the articulatory bits and pieces of the tongue and mouth) enabling us to articulate a wide range of sounds, as well as on a remarkable degree of respiratory control, allowing us to sustain long, fluent, articulated phrases, and to modulate intonations subtly over the length of a single breath. All known languages require these features. Monkeys and apes do not have any such control, which is one reason why attempts to train them to speak have been so unsuccessful.⁶

In order to be able to *say* "faith comes by hearing" or to *hear* "the Word became flesh," all this bodily equipment must be in place. God cannot—or at least God has chosen not to—mediate the gospel to human beings without a complex historico/evolutionary process having reached the stage where such sentences can be generated by human voices which can articulate them and be received by human ears that can decipher them. And according to the best science available to us, this process has taken some 4 billion years of development of the surface of the earth.

Human life is older than scripture, animal life is older than human life, the ocean is older than animal life, and the earth is older than the ocean. In all cases, the later realities presuppose the earlier and depend upon them. But even that is not the full story. The earth itself is the creation of star dust drawn into immense clusters by the forces of gravitation, inertia and nuclear fusion operating through measureless amplitudes of space. And the process of star formation and disintegration has been underway since the Big Bang some

6 Iain McGilchrist, *The Master and his Emissary: The Divided Brain and the Making of the Western World* (New Haven: Yale University Press, 2010), 101. The whole chapter (pp. 94-132) in which these words appear, entitled "Language, Truth and Music," is a brilliant exposition of what conditions must apply for speaking (and music making) animals to evolve on the earth.

13.5 billion years ago. If preaching requires human voices and human ears to get underway—and it does—then preaching presupposes this astonishing incubation process. Preaching the gospel requires the history of the universe as its condition of operation.

Sadly, as a preacher I have scarcely stopped to marvel at this reality. I blithely stepped into the pulpit, bible in hand, and let fly. Had I taken more seriously the witness of that same bible to the earth as *God's creation*, instead of simply assuming it as a kind of passive stage on which human activity took front and centre spot, I might have been more respectful, more in awe of the vocation that preaching actually is. To speak the word "God" as it is spoken in preaching, not only requires that God be living, speaking, trustworthy and "with us," which is marvellous beyond telling. It also requires that the world be formed over billions of years by the intentions of the same creator God. So that at last, and in the fullness of unbelievable stretches of time, I with my voice and my ears, along with you and yours, and countless other human beings, have appeared on earth and been granted a share in God's speech, which is a share in God's life and love. In the light of what we know of God and of God's earth, that is one truly astonishing gift.

The content of preaching

"And earth" has direct implications for the content of our preaching in addition to the influence it exerts on context and conditions. Of many possible themes, let me mention just two. The first has to do with our understanding of God, the second of ourselves.

The book of Job is famous for its discussion of the theological problem of human suffering. How is it that an upright and pious man, Job, who fears God and seeks to live a just and compassionate life, is cut down in his prime with a crippling, painful and disgusting disease? Friends gather to comfort him. In the course of their stay they cannot resist offering advice, interpretation and counsel. Like many preachers, these friends seem confident—very confident—that they know who God is and how God will and *should* act in these difficult human circumstances. Theological debate goes back and forth between Job and his friends for 35 long chapters. Then at last, in chapter 38, Yahweh makes an appearance. God speaks to Job. And God's speech lasts for the next 71 verses (chapters 38–39).⁷ This is the longest uninterrupted speech of God in the entire Bible, which in itself ought to make us sit up and take notice. And it is surprising from start to finish.

7 A second speech occupies most of chapters 40–41. We have space only to consider speech one.

“Then the Lord answered Job out of the whirlwind: ‘Who is this that darkens counsel by words without knowledge?’” (Job 38:1). Sobering words for a preacher. Job and his friends have been spouting theology for days! But notice *where* the divine voice comes from. It does not come from a sacred book or from a sermon based on it. It does not come from the Temple or the Synagogue. It comes from the wind. A *whirlwind* speaks to Job as a burning bush spoke to Moses (Exodus 3:1-6). The dynamics of the atmosphere of earth become the medium for the word of God. This does not mean that the text advocates some simple “natural theology” as our only or primary source of knowledge of God, as some commentators maintain. The book of Job presupposes the revelation of Yahweh through the covenant with Israel and the history of its outworking as recorded in scripture. But the voice from the whirlwind reminds us that God is active, and active as *word*—as communication—in God’s creation.

And what God says is as surprising as how God says it. Job and his friends have been preoccupied with *human* concerns. That is understandable. Job’s life is in disarray. He has lost family and fortune. His world is in pieces and his body in pain. Of course he is concerned with this. But the reply that comes from God makes no mention of what has dominated the human discussion. God’s speech is a beautifully crafted poem. A vivid “tour guide” of the earth; an earth filled with untamed wonder that reflects the glory of its maker.

The force of the utterance can only be felt by reading the speech in one sitting, and preferably aloud. But let me just list, in utterly unpoetic fashion, the elements of creation as they appear. Earth, stars, sea, clouds, morning, light, death, darkness, snow, hail, wind, rain, thunder, desert, ground, grass, dew, ice, frost, dust, clods, lion, raven, mountain goat, deer, ass, salt land, mountain, pasture, ox, ostrich, eggs, horse, hawk, vulture. The list is impressive enough. But as each element is dwelt upon by its Creator in turn, the cumulative weight of the discourse is overwhelming. This is earth in majestic unity and incredible diversity. And there is no mistaking that this is *God’s* earth through and through. God accepts responsibility for the world as it is. The earth is *not* ours. A series of rhetorical questions addressed to Job (38:4-5, 12, 16-17) underline this point relentlessly.

Where were you when I laid the
foundation of the earth?
Tell me, if you have understanding.
Who determined its measurements—
surely you know!
Have you commanded the morning
since your days began,

and caused the dawn to know its place ... ?
 Have you entered into the springs of the sea,
 or walked in the recesses of the deep?
 Have the gates of death been revealed to you ... ?

Not only is the making of the earth God's business and not ours. The ordering of the earth is God's as well. And God orders the earth for *all* God's creatures, not only for humans. Each creature has its own place and dignity. Each is the object of the Creator's care.

Who has let the wild ass go free?
 Who has loosed the bonds of the swift ass,
 to which *I have given the steppe for its home,*
 the salt land for its dwelling place? (39:5-6, italics added)

It is not just that the wild ass happens to live in the steppes. The steppes are *given* to it as its rightful home by God.⁸

And the great earthly drama of sea and land, sky and cloud, rain and wind, light and dark, life and death exists and operates with and for itself, at God's behest, independent of human presence or human interests.

Who has cut a channel for the torrents of rain
 and a way for the thunderbolt,
 to bring rain on a land *where no one lives,*
 on the desert, *which is empty of human life,*
 to satisfy the waste and desolate land,
 and to make the ground put forth grass? (38:25-27, italics added)

As Bill McKibben puts it: "God seems untroubled by the notion of a place where no man [*sic*] lives—in fact God says he makes it rain there even though it has no human benefit at all."⁹ It would be hard to think of a stronger way of putting the point that from God's perspective the earth and its creatures have integrity, value and meaning in their own right, independent of their value or meaning for us. And God delights in the earth in all its wild, fierce, abundant, raw interaction.

Can you hunt the prey for the lion,
 or satisfy the appetite of the young lions,
 when they crouch in their dens,
 or lie in wait in the covert? (38:39-40)

8 Cf. Psalm 104:16-22.

9 Bill McKibben, *The Comforting Whirlwind: God, Job, and the Scale of Creation* (Grand Rapids, Michigan: William B Eerdmans, 1994), 28; see also 27-47 which have influenced me strongly in writing this section of the paper.

In contrast to Job, we moderns with our four-wheel drives and high powered rifles, can not only hunt prey for the lions, but hunt lions themselves to the point of extinction. And yet according to this speech, lions are beloved of God. And provided for by God. And it is not just the great and the beautiful (in my judgment) that God honours. Keeping up the relentless questioning of Job's limitations, God finishes the speech with a celebration of the grotesque and the repulsive.

Is it at your command that the vulture mounts up
and makes its nest on high?
It lives on the rock and makes its home
in the fastness of the rocky crag.
From there it spies its prey;
its eyes see it from far away.
Its young ones suck up blood;
and where the slain are, there it is.¹⁰

A sense of wild, frightening, glorious, tough, even grisly "otherness" runs through God's speech. Job complains that the world makes no human sense. God shows him the wild earth all about him and beyond. It is not that God ignores or forsakes Job. In the end of the story Job's fortunes are restored. He is redeemed. But God's encounter with Job has left him in no doubt that God has intentions and affections—indeed *loves*—that are greater and wider than human interests and desires. Job 38–39 is a vision of a beloved world that is more than human. Modern science has only filled out that vision with greater and more astonishing detail.

God has chosen to create the universe in all its astonishing splendour, vastness, complexity and mystery. That means the earth is no accident or after-thought. God will not be God without the earth. The earth is as central to God's identity for us as the incarnation and the giving of the Spirit. My practice of preaching has been binitarian (Christ, Spirit) rather than properly trinitarian (Creator, Christ, Spirit). Until "and earth" is truly integrated in my preaching this distortion of the name and nature of God will remain.

But a shift in emphasis in understanding "and earth" in relation to the naming of God has inevitable consequences for our naming and understanding of ourselves. To speak of this age as the Anthropocene already points the way. Ours is an age when human (*anthropos*) ambitions have begun to alter the earth and its dynamics at a planetary rather than merely a local level.

10 Job 39:27–30. The NRSV refers to "eagle" where I have put "vulture." But the bloody sense of the text makes the latter more likely as the meaning intended.

God's rhetorical questions to Job about whether he is able to measure "the foundations of the earth," or enter "the storehouses of the snow," or alter the "prescribed bounds" of the sea, all rightly anticipate the answer "no"! Job is put in his place well and truly in comparison to God's creative designs. But we of the Anthropocene are in a markedly different position. We know a lot about the foundations of the earth. And we put that knowledge to practical use every day in our mining, agriculture, travel, commerce and city building. In so doing we alter those measurements significantly to our own ends. Snow is absolutely out of reach of any influence Job could wield. But we have become "weather makers" of significant clout.¹¹ The on-going dumping of CO₂ and other greenhouse gases into the atmosphere in the post-industrial age is warming the planet to the point where huge plates of snow and ice are melting from the storehouse. And as for the bounds of the sea, anthropogenic change, again linked with increasing mean surface temperatures of the earth, is resulting in ocean levels rising, waters warming and acidic levels climbing.¹² This changes the conversation between God and humanity. Where Job was forced to be silent, we can and have answered back.

What does that mean theologically? Many things. And not all of them negative. Our God-given capacity for thought, intention and organised action has led to discovery, invention and technology of immense benefit to humankind: medicine, machinery, communications, transport, food distribution and so on. But the Anthropocene presents a darker and more ominous side as human influence widens. Anthropo-*cene* all too easily becomes anthropo-*centre*, that is, an almost exclusive focus on human interests and desires to the disregard of the interests and desires of other beings who share the earth with us. Martin Luther classically described sin as *incurvatus in se*, the turning or curving inward of the human being upon itself; a turning *in* which involves a turning *away* from God and from fellow human beings. The curved-in self, Luther argues, "seeks itself and its own interests in everything: it brings it about that man [*sic*] is finally and ultimately concerned only for himself."¹³ Radical distortion is thereby introduced into personal and social life. The intentions of God are down-played. The legitimate interests of others are discounted.

11 See Tim Flannery, *The Weather Makers: the History and Future Impact of Climate Change* (Melbourne: Text Publishing, 2005).

12 See the latest IPCC [Intergovernmental Panel on Climate Change] Reports, (a) "Summary for Policy Makers," http://www.climatechange2013.org/images/uploads/WGIAR5-SPM_Approved27Sep2013.pdf; and (b) http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr1.pdf, accessed 12 January 2015.

13 Wilhelm Pauck, trans., *Luther: Lectures on Romans*, The Library of Christian Classics, Vol. XV (London: SCM Press, 1961), 225.

Preaching has always addressed this issue. The Anthropocene gives it a new and more sinister twist. The *incurvatus in se* that marks our time has blown out beyond self and society. It has become planetary. God's speech to Job shows God delights in the full range of beings that God has seen fit to place on the earth. But humans of the Anthropocene (at least in the west) largely ignore this. The assumption that the earth exists for human convenience and its bounty for human consumption pervades much of our culture. It is not so much that we consciously choose anthropocentrism as our preferred philosophical position. Rather, it's just there. We just live and breathe it daily. But given our numbers and technology, this means humans are in fact living at the expense of almost every other species on earth, and finally of earth itself. Let me just cite one issue close to home. The Great Barrier Reef is one of the natural wonders of the world, a priceless treasure of our nation and its land. But climate change, mining and agricultural runoff are threatening its future. In his book, *The Reef: a Passionate History*, Iain McCalman documents the decline of this wonder.

If, as AIMS tells us, the Great Barrier has already lost half its coral cover during the last twenty-seven years through bleaching, cyclones, pollution and crown-of-thorns starfish, what will happen to this figure as the effects of acidification take hold? Reef corals will be among the first organisms in the oceans to be affected by this alarming process, stricken, in effect, with a fatal form of "coralline osteoporosis." Their aragonite skeletons will either stop growing altogether or become too brittle to resist the eroding effects of waves [and] ... eventually a remorseless domino effect ... will presage a succession of ecosystem disasters.¹⁴

From the preacher's point of view this is not just an ecological disaster, though it certainly is that; and it is not just an economic disaster, though it is that as well. It is a *theological* disaster. It is a wilful defacing of the beauty of God's earth and of the integrity of a host of creatures given *their* bodily form by the same God who took our flesh in Jesus Christ to bring us share in God's life. But God's creation of the earth and Christ's redemptive work in the earth are for the world as a whole, not just for us. The great hymn in Colossians 1 (another of those texts I have ignored in my preaching) says of Christ:

in him *all* things in heaven and on earth were created, ... *all* things have been created through him and for him. He himself is before *all* things, and in him *all* things hold together. ... For in him *all* the fullness of God was pleased to dwell, and through him God was

14 Iain McCalman, *The Reef: a Passionate History* (Melbourne: Viking, 2013), 331. AIMS is the Australian Institute of Marine Science.

pleased to reconcile to himself *all* things, whether on earth or in heaven, making peace through the blood of his cross. (Colossians 1:16-20, italics added.)

The word *all* used five times presumable means what it says. God has created *all* things in Christ and God intends in Christ to reconcile *all* things to Godself. God has not created a vast universe of which the earth is an integral part simply to focus God's loving and redemptive passion on human beings to the exclusion and rejection of all other things. "And earth" matters to God in creation, to Christ in reconciliation and to the Spirit in redemption.

This means "and earth" *must* matter to us. Like Job, but even more urgently, humans of the Anthropocene need to be re-placed; that is, put in a new, more fitting place in the scheme of *all* things. We need to repent of our current *incurvatus in se*. To quote Bill McKibben once more, "the first meaning... of God's speech to Job [and, I think, of the christological speech to the Colossians] is that we are a part of the whole order of creation—simply a part."¹⁵ This is a radical message to proclaim in the Anthropocene. It runs hard against vast interests that dominate much of our politics, economics and media. To understand God as the God of *all* beings and to understand ourselves as just a part of God's creation—not its be all and end all—is a radical call to repentance and amendment of life.¹⁶

Conclusion

Learning to preach in the Anthropocene means learning to take seriously the "... and earth" of the creed. This implies much more than devoting a sermon here and there to ecological topics of the moment, important though that is. It means, rather, altering our interpretive perspective to take the biblical witness to God as Creator as seriously as we take its witness to Christ as Reconciler and the Spirit as Redeemer. We do not preach the resurrection of Jesus only on Easter Sunday. The resurrection precipitates a "new creation" in the midst of the world (2 Corinthians 5:17). That changes everything. We now interpret *all* things, moral, spiritual, physical, economic through the eyes of resurrection life. Again, we do not preach the Holy Spirit only at Pentecost. The life-giving presence of the Spirit transforms existence in *all* aspects. It affects every text we read, every sermon we deliver, every action we take. Likewise, we do not

15 McKibben, *The Comforting Whirlwind*, 28.

16 For a brilliant example of contemporary preaching which takes seriously "and earth" see and hear Bill McKibben's sermon on Job at the Riverside Baptist Church in New York on YouTube: https://www.youtube.com/watch?v=geIni_BwjGw.

preach “maker of heaven and earth” only on Creation Sunday. The earth is God’s earth and thus the context, condition and content of our lives. The earth must therefore significantly shape the form our preaching takes as a whole. Along with Easter Sunday and Pentecost it becomes an integral part of the theological framework in which we *all* “live and move and have our being” in God the blessed Trinity (Acts 17:28).

The Reverend Graeme Garrett is an Anglican priest formerly from the Diocese of Canberra/Goulburn where he worked for nearly 20 years as a teacher of theology at St Mark’s National Theological Centre and the School of Theology at Charles Sturt University. He was editor of St Mark’s Review for nearly a decade in the 1990s. His publications include God Matters: Conversations in Theology and Dodging Angels on Saturday.

References

- Flannery, Tim. *The Weather Makers: the History and Future Impact of Climate Change*. Melbourne: Text Publishing, 2005.
- Marshall, George. *Don’t Even Think About It: Why Our Brains Are Wired to Ignore Climate Change*. London: Bloomsbury, 2014.
- McCalman, Iain. *The Reef: a Passionate History*. Melbourne: Viking, 2013.
- McGilchrist, Iain. *The Master and his Emissary: The Divided Brain and the Making of the Western World*. New Haven: Yale University Press, 2010.
- McKibben, Bill. *The Comforting Whirlwind: God, Job, and the Scale of Creation*. Grand Rapids, MI: William B. Eerdmans, 1994.
- Pauck, Wilhelm, trans. *Luther: Lectures on Romans*. The Library of Christian Classics, Vol. XV. London: SCM Press, 1961.
- Schifferdecker, Kathryn. *Out of the Whirlwind: creation theology in the book of Job*. Cambridge, MA: Harvard Theological Studies, 2008.

Submission guidelines

Contributions are invited for the third issue of the *Journal of Ecotheology*, scheduled for publication in October 2017. Papers should generally be in the area of environmental theology, including: systematic theology, Christian spirituality, ecclesiology, Biblical studies, Church history or Christian ethics. Articles with a distinctly Australian orientation and which engage with contemporary environmental issues are especially desired. The editorial committee is happy to review abstracts and comment on whether a proposed paper falls within the scope of the publication.

We aim for a journal that combines academic rigour with contemporary relevance and accessibility. Of its nature the *Journal of Ecotheology* is interdisciplinary, and we welcome contributions from all theological traditions. We also welcome contributions from emerging as well as established scholars.

For consideration in the October 2017 issue, submissions need to be received by 30 June 2017.

Information for contributors

Papers should be no more than 5,000 words excluding references, and forwarded in MS Word (.docx or .rtf) or Open Document Format (e.g., Libre Office .odt) without embedded field codes to the Anglican EcoCare Project Officer, Ms Radhika Roy (ecocare@perth.anglican.org).

Papers should follow the referencing guidelines in the *Chicago Manual of Style*, 16th edition (footnotes) with an accompanying reference list. This may be referred to online at <http://www.chicagomanualofstyle.org>. Spelling must follow Australian conventions, and Biblical references and abbreviations should follow the Society of Biblical Literature *Handbook of Style*. If you use citation software such as Endnote or Zotero, please ensure *op. cit.* is not used and ensure all citation fields are converted to plain text before submission. Please format your document with double spacing using Arial 12 (body text) and single spacing using Arial 10 (footnotes). All papers must include

an abstract (maximum 150 words) and biographical information on the author(s) including title, institutional affiliation and an email address for correspondence.

Authors whose papers are accepted for publication must certify they own copyright of the work including permission for the reproduction of illustrations, and that it has not previously been published. Publication rights under copyright are transferred to the Perth Diocesan Trustees trading as Anglican EcoCare for a period of two years for purposes of a single publication within 12 months of the date of agreement.

**Anglican
EcoCare**



Editorial Board

Dr Deborah Guess
The Reverend Canon Dr John Dunnill
The Reverend Craig Collas
The Reverend Peter Llewellyn
The Reverend Evan Pederick
The Right Reverend Tom Wilmot

Project Officer

Ms Radhika Roy
ecocare@perth.anglican.org

Printed on recycled, carbon-neutral paper by the Environmental Printing Co.
Also available online at www.perth.anglican.org/ecocare

ISSN 2204-1877 (print)